

Niklas Sabelström

Master's Thesis

Value relevance of goodwill impairments: the relationship between changes in goodwill and market value

Master's Thesis in Accounting

Faculty of Social Sciences, Business and
Economics

Supervisor: Jean Claude Mutiganda

Åbo Akademi University

Åbo 2018

Author: Niklas Sabelström
Specialization: Accounting
Supervisor: Jean Claude Mutiganda
Title: Value relevance of goodwill impairments: the relationship between changes in goodwill and market value
<p>Abstract: This thesis asks to answer if goodwill impairment losses are value relevant. This study uses a sample of 390 firm-year observations, collected from Finnish listed companies during the period 2012 to 2017. The purpose is to investigate whether the information of goodwill impairment losses influence the investment decisions of market participants. This study employs a multivariate ordinary least square regression focusing on companies that adopt International Financial Reporting Standards (IFRS) 3 – <i>Business Combinations</i> in their accounts. IFRS 3 requires that goodwill is reported at its fair value, which obliges management to conduct yearly impairment testing. A firm must record goodwill impairment losses if the carrying amount of goodwill on the balance sheet is higher than the fair value of goodwill. It has been argued that the current standard is not specific enough in determining how the actual impairment testing ought to be performed, offering incentives to managers to act opportunistically when conducting the impairment test.</p> <p>The findings of this research suggest that investors on the Finnish market perceive goodwill impairment losses as value relevant. The empirical evidence presents a significant negative association between goodwill impairments and market value, indicating that investors incorporate the impairment announcement to their firm valuation models, which results in a decline in stock price. The results further indicate that management’s subjective view has a significant impact on goodwill accounting, and therefore managers might be more willing to use their accounting discretion opportunistically and convey valuable economic information. The evidence presented in this study is consistent with prior research and with the International Accounting Standards Board’s (IASB) objective to present value relevant information to investors.</p>
Key words: Goodwill accounting, goodwill impairments, IFRS, value relevance
Date: 27.12.2018 Pages: 61

Table of Contents

1	Introduction	1
1.1	Introduction and Background.....	1
1.2	Problem Discussion.....	4
1.3	Purpose of the Study	6
1.4	Research Question.....	6
1.5	Research Approach and Limitations	6
1.6	The Structure of the Thesis	7
1.7	Terminology.....	8
1.7.1	Goodwill.....	8
1.7.2	Goodwill Impairment.....	9
1.7.3	Value Relevance.....	10
2	Theoretical Framework	11
2.1	Goodwill Accounting Treatment	11
2.2	Goodwill Accounting Rules According to IFRS 3	13
2.3	Goodwill Impairment Testing under IAS 36	14
2.4	Negative Goodwill	16
2.5	Value Relevance of Goodwill.....	17
3	Previous Studies.....	19
3.1	Impairment of Goodwill.....	19
3.2	Managerial Discretion.....	23
3.3	Goodwill and Market Value.....	24
3.4	Goodwill and Economic Performance	26
3.5	Summary of Previous Studies	29
4	Research Method and Data	31
4.1	Method	31
4.2	Data and Sample Firms	32
4.3	Variable Descriptions.....	33
4.4	Capitalized goodwill	36
4.5	Goodwill impairers.....	38
5	Findings and Discussion	39
5.1	Descriptive Statistics.....	39

5.2	Multivariate Regression Results	41
5.3	Discussion of the Results	43
5.4	Reliability, Replicability and Validity	44
6	Conclusion	47
6.1	Key findings	47
6.2	Contribution	48
6.3	Limitations	49
6.4	Future Research Suggestions	49
7	Summary in Swedish	51
7.1	Inledning	51
7.2	Avhandlingens Syfte	52
7.3	Forskningsfrågan	52
7.4	Teori	52
7.4.1	Goodwill	52
7.4.2	Värder relevans av Goodwill	53
7.5	Metodik, Data och Regressionsmodellen	54
7.6	Resultat	54
7.7	Slutsatser	55
	References	57

Tables

Table 1.	Balance sheet changes of intangible assets	28
Table 2.	Presents the sample construction process	33
Table 3.	Reported goodwill impairment loss.	38
Table 4.	Descriptive statistics of the sample firms.	39
Table 5.	Pearson Correlations of the study sample	40
Table 6.	Results of the multivariate OLS regression model	41

Figure

Figure 1.	Capitalized goodwill during 2012 – 2017	37
-----------	---	----

1 Introduction

This chapter will introduce this thesis by providing background information about the subject. Further, the problem discussion, the purpose, and the research question of this thesis will be presented. In addition, the research approach and limitations, as well as the study's structure are introduced. Finally, the relevant terminology regarding this thesis is presented.

1.1 Introduction and Background

In January 2005, the International Accounting Standards Board (IASB) obliged European-listed companies to apply International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS) in their financial statements. One of the most noteworthy changes in international accounting, after the adoption of IFRS and IAS, has been the use of the fair value method instead of the traditional cost approach. As a result, IFRS 3 – *Business Combinations* was issued. With the adoption of IFRS 3, the previously approved pooling of interest method was abolished. Further, IFRS 3 forbids amortization of goodwill. Instead, the standard obliges that goodwill impairment testing should be performed every time there is a concern that the underlying assets value has declined drastically. However, impairment testing should be performed at least every year to assess the true value of goodwill. The IAS 36 – *Impairment of Assets* guides companies and tries to ensure that a company does not value their assets higher than the assets true recoverable amount.

By guiding companies to implement the impairment only approach the standard setters seek to surge market efficiency by improving the transparency and comparability of corporate accounting to increase relevancy of accounting evidence (Hitz, 2007). There is not a general rule in how companies should conduct goodwill impairment testing and therefore companies face several issues when performing the impairment test. These issues relate to the valuation of the carrying amount of the assets (Catty, Vadron & Isom, 2015). Goodwill impairment tests under IAS 36 require the management of the company to test the value of goodwill annually. After the impairment test is conducted, if the management find indication that goodwill is valued higher in the

accounts than the recoverable amount of goodwill, the management should impair goodwill. Hamberg, Paananen and Novak (2011) note that goodwill that has been capitalized in the accounts signifies excess future cash flows. Hence, the impairment process has a solid theoretical foundation, meaning that when the excess future cash flows, which have been allocated to goodwill decline, the value of goodwill should decrease. The impairment process can consequently be seen as a way of communication where the management of a company makes privately held future economic information of a firm public. Goodwill impairment losses can consequently be viewed as not direct, but rather indirect evidence as analysts and investors review the results of the management's impairment test and revise their future profitability estimations accordingly (Li, Shroff, Venkataraman & Zhang, 2011). A study conducted by Hamberg et al., (2011) reports that from 2003 to 2007 goodwill balances increased by 50 percent (measured relative to total assets) on the Swedish market. An important reason for this surge was the abolishment of goodwill amortization (Hamberg et al. 2011). The intentions of IASB are to get companies to report assets at their fair value providing more accurate and timely information about the value of the assets, instead of reporting assets using the previous cost approach. Using fair value methods for non-financial assets where market-based measures are derived from managements' expectation on future cash flows has its pros and cons. Mixing fair values and managerial discretion might be cumbersome; this is frequently discussed from both a conceptual (Hitz, 2007) and an empirical standpoint (LaFond & Watts, 2008). IASB aspirations are that the fair value approach provides users of financial statements a more accurate, sensible and transparent way of evaluating a company and its assets (IASB, 2004; Moehrle & Reynolds-Moehrle, 2001).

The impairment tests of goodwill under IAS 36 are subject to managerial discretion. This is due to the fact that it is difficult to precisely estimate the recoverable amount of the underlying assets goodwill has been allocated to. Watts (2003) state that it might be hard to evaluate and estimate these assumptions, and this is why the estimates might provide harmful information of goodwill and the financial statements, allocating costs to investors. IAS 36 provides management with opportunities to resourcefully make use of agency-based motives when performing the goodwill impairment test. The IAS 36 standard allows the management of a company to calculate and define the true underlying value of goodwill without providing a specific model for the impairment

test (Catty et al., 2015). This offers the management of the company incentives to act opportunistically and influence the results of the impairment test. The enticements differ from earnings-linked bonus incentives to violating debt covenants, since violations of the contract may cause extreme financial expenses for the company (Beatty & Weber, 2006). It might be that the company reports irregularly high or low earnings, and therefore the management might be enticed to account for uncharacteristically high goodwill impairment losses. AbuGhazaleh, Al-Hares & Roberts (2011) argue that the foundation beyond recording higher goodwill impairment losses than needed might be that the management is prone to follow a stable financial reporting strategy. By manipulating goodwill impairment losses the management can even out current and future reported earnings. On the other hand, Saastamoinen and Pajunen (2012) report that abnormally low earnings may provide managers to deliberately report goodwill impairments with low operational earnings to increase upcoming earnings.

In the United States, the Financial Accounting Standards Board (FASB) regulatory body established on 1 January 2002 stringent rules regarding the recognition of goodwill with the introduction of the Statement of Financial Accounting Standards (SFAS) 142. This regulatory framework increases the requirements regarding disclosures used for the valuation of goodwill and prohibited depreciation of goodwill. Empirical evidence from the U.S. indicates that the new impairment-only approach provides a marginal increase in decision usefulness (Chen, Kohlbeck & Warfield, 2004). There are significant alterations between the U.S. and the European setting on goodwill amortization. U.S. firms' often amortized goodwill over extended periods of time and the abolishment of amortizations have had a small effect on companies reported earnings. In Europe, goodwill is amortized over a shorter period, and the effect on reported earnings is much more significant, which reinforces managements' incentive to act opportunistically. Leuz, Nanda & Wysocki (2003) claim in their study, that earnings management is more common in Europe than in the U.S. because of the more significant economic incentives.

1.2 Problem Discussion

Prior studies have focused in particular on the relevance of the intangible assets and the significance of goodwill on the balance sheet both before and after the adoption of IFRS 3 (e.g. Oliveira, Rodrigues & Craig 2010; Beisland & Kjell 2015). Empirical evidence is presented that amortization of goodwill over an arbitrary time frame miscarries to provide valuable information to investors, and instead makes it harder for investors to interpret future earnings estimations. This makes it more difficult for investors to calculate future profitability (Jennings, LeClere & Thompson, 2001). The new goodwill impairment method has been demonstrated to provide more timely and precise accounting information compared to the previous amortization method that has traditionally been used in accounting (KPMG, 2014).

AbuGhazaleh, Al-Hares and Haddad (2012) report empirical evidence that reveals that when a firm reports goodwill impairment losses it causes the market value of the firm to decline. The study suggests that investors perceive impairments as reliable measures of declining goodwill value and incorporate this belief when valuating firms. Furthermore, the study provides evidence consistent with IASB's intentions regarding the impairment-only approach. It has been argued that the impairment method is value relevant and whether it fulfills the conceptual framework reported by the IASB. Impairment losses are affected by firm-specific conditions such as profitability, the size of the impairment, and financial advantages the company has (Zang, 2008). Prior research further indicates that managers tend to delay the impairment loss reporting (Li et al., 2011).

The requirements that have been presented upon the introduction of IFRS 3 have meant that companies today are forced to report more thoroughly about goodwill and intangible assets arising from acquisitions. The changes in accounting standards have meant that companies can no longer value goodwill as before. This is due to the fact that intangible assets are required to be reported separately from goodwill (Ernst & Young, 2004). If intangible assets, for which there is no active market, are included on the balance sheet, the valuation of these assets is likely to differ from each other. Therefore, these values may be regarded as uncertain by investors.

The discounted cash flow calculation forms the base for the impairment test. This calculation is largely founded on the company's subjective assessments (Uzma, Singh & Kumar, 2010). The fact that companies mainly base these tests on subjective assessments means that there is a risk that the assessments tend to be optimistic. As the accounting information is, to a greater extent, based on the company's own estimates, this leads to a greater involvement of management in these companies. Thus, it is essential for business executives to ensure that they are appropriately incorporated into the new rules and regulations in order to respond to the increased requirements for information currently presented by the accounting standards.

When IASB initiated the use of IFRS 3 and IAS 36, the standard setters implied to increase the timeliness of goodwill. The value relevance of the impairment only regime has been argued to not provide additional value to investors and users of the financial statement. IFRS 3 has been applied to the accounts of Finnish listed companies since 2005. Applying IFRS to the financial accounts instead of the traditional Finnish Accounting Standards (FAS) has created contradiction especially when valuing capitalized goodwill on the balance sheet.

This research focuses on goodwill impairment for the following reasons: Firstly, goodwill accounts for a substantial asset on a firm's balance sheet and thus it is an important corporate asset (Jennings, Robinson, Thompson & Duvall, 1996). Secondly, valuation of goodwill is a key element when assessing a firm's future cash flows (Hayn & Hughes 2006). Finally, goodwill impairments are the leading factor for future firm performance stemming from the failure to realize expecting profits from prior acquisitions (Li et al., 2011).

Following the methodology of AbuGhazaleh et al., (2012), this research aims to examine the value relevance of goodwill impairments reported on the Finnish market between 2012 and 2017. Value relevance of goodwill impairments using a Finnish data set has not been significantly researched between 2012 and 2017. This makes value relevance of goodwill impairments on the Finnish market after the IFRS 3 adoption an interesting study object, especially when the Finnish accounting standards are deemed to be of high quality (Hamberg et al., 2011; Pajunen & Saastamoinen, 2013).

1.3 Purpose of the Study

The purpose of this thesis is to study the value relevance of goodwill impairments reported on the Finnish market.

1.4 Research Question

This study asks to answer the following research question;

Do investors treat goodwill impairments as value relevant?

1.5 Research Approach and Limitations

This study is focused on the Finnish equity market, and more specifically on companies listed on the Nasdaq OMX Helsinki Stock Exchange that comply with the IFRS standards and have capitalized goodwill on their balance sheets. The research concentrates on analyzing value relevance of goodwill impairments, and the study is limited to a time frame from 2012 to 2017. The most important standards related to this research are IAS 36 - *Impairment of Assets*, IAS 38 – *Intangible assets* and IFRS 3 - *Business Combinations*. Furthermore, this study will not present standards used in other countries, including US GAAP, nor the standards used by Finnish non-listed companies. This research excludes companies listed on the Nasdaq First North exchange since those companies and their financial statements do not follow IFRS guidelines. This research uses quantitative approach to study the value relevance of goodwill impairments.

The data collected from Finnish listed companies offers fascinating and interesting opportunities for a goodwill impairment research. Initially, in contrast to prior studies conducted in the U.S., where goodwill impairment testing is performed using a two-step procedure, goodwill impairments are tested using a one-step method under IFRS 3 (AbuGhazaleh et al., 2011). Researchers suggest that the one-step method makes it harder for managers to convey information about goodwill, hence resulting in more reliable information provided to investors. Moreover, this empirical study collects data from both goodwill impairers and non-impairers to provide a more accurate description of the impairment only approach.

1.6 The Structure of the Thesis

Chapter one provided a brief introduction to the research topic and the problem discussion. Further, it provided information on the problematic view of the accounting treatment of goodwill. Following, the relevant terminology will be presented and the primary standards related to goodwill are introduced.

The second chapter covers theories that are relevant to the topic of this thesis. There is an ongoing debate on how goodwill should be treated and defined. Furthermore, the second chapter focuses on goodwill accounting rules under the IFRS 3 regime, and the accounting treatment of goodwill under IAS 36 is explained. This chapter further introduces the impairment testing procedure, negative goodwill, and value relevance of goodwill accounting.

The third chapter presents prior research on the value relevance of goodwill impairments. This chapter focuses on the value relevance aspect of goodwill, and the informational value goodwill has to investors. Relevant studies regarding goodwill impairments, managerial discretion, goodwill and market value, and the economic performance of goodwill are introduced.

The research methods of this study are presented in chapter four. This chapter will introduce the research method and the quantitative research process. The research methods are followed by the introduction of the data used in this study. The regression model and variable descriptions are also presented.

In chapter five, the findings of this study are presented together with a discussion of the results. This will be followed by the presentation of the reliability and validity of this study.

In chapter six, the conclusion, and the key findings are presented, followed by the research contributions and limitations. Further, future research suggestions are presented. Chapter seven summarizes this thesis in Swedish.

1.7 Terminology

1.7.1 Goodwill

A generally accepted definition and accounting treatment of goodwill have yet to be reached. The problem in defining goodwill is based on the inevitable fact that the concept of goodwill is unclear, which makes it difficult to define (Giuliani & Brännström, 2011). Some define goodwill as a company asset, while others refuse to accept goodwill as an asset. Furthermore, there is a divided pool of opinions among researchers about the correct accounting treatment of goodwill. According to IAS 38, an asset can be defined as a resource that a company controls and assumes to receive economic benefits from in the future. Bugeja and Gallery (2006) indicate that goodwill is identified as an asset by investors.

The goodwill value on the balance sheet is created when a company acquires another company. More specifically, it is the premium paid for the acquisition of the target company. Goodwill value is calculated from the difference of the residual value of past acquisitions and the fair value of the acknowledged net assets in the company that is being acquired (IFRS 3). Hamberg et al. (2011) note that the value of goodwill is considered an unidentifiable asset, which is expected to provide future economic benefits for the company. IFRS 3 defines the equation form which goodwill is measured as follows:

Goodwill = Consideration transferred + Amount of non-controlling interests + Fair value of previous equity interests – Net assets recognized.

This means that if the difference above is negative, the resulting gain is considered a bargain purchase. (IFRS 3.34-35).

A company can control and own tangible and intangible assets, which can be valued and verified. IAS 16 – *Property, Plant and Equipment*, define tangible assets as items that are used for more than one year to produce goods and services, or that are being used for administrative purposes. On the other hand, IAS 38 defines intangible assets as identifiable non-monetary assets with no physical material. Intangible assets include special knowledge, design, and implementations of new products, intellectual property, and trademarks. Vance (2010) has noted in his research, that goodwill is no

different from other tangible or intangible assets but is valued differently. On the other hand, Gore and Zimmerman (2010) do not consider goodwill as an actual asset, but rather a generated synergy when a company acquires another company.

Internally generated goodwill cannot be capitalized on the balance sheet, which means goodwill only arises when a company is purchased by another company. The value of goodwill merges from intangibles such as location, reputation, superior market position or the skill and learning of management and employees. Goodwill is measured as the change of the fair value of the identified net assets and the acquisition price paid by the acquirer (Vance, 2010). According to IFRS 3, the fair value of an asset is defined “as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.” (IFRS 3). The residual nature of goodwill makes the measurement of its input to performance difficult (Vance, 2010). This means, it might give investors and other users of the financial statement misleading information.

1.7.2 Goodwill Impairment

According to the new characteristics of the economy, an increasing need for a more relevant approach for a new goodwill accounting standard. The value of goodwill is related to future earnings, and therefore an adequate approach was created when IFRS 3 came to life in 2005. Before the adoption of IFRS 3, goodwill was accounted either by pooling of interests method or the purchase method. The use of different methods led to dramatically different results in financial statements, and misguided the users of financial statements (Jerman & Manzin, 2008). According to IAS 36, it is important that goodwill impairment testing is performed at least once a year, or more often if is thought that the underlying asset has lost value. The impairment testing aims to examine whether the book value of an asset or cash-generating unit has declined. This means that an impairment loss needs to be accounted for if the carrying value of an asset is higher than the assets true recoverable amount. The purpose of IAS 36 is to make certain that assets are not valued higher on the balance sheet than their true recoverable amount.

An assets recoverable amount is defined, according to the IAS 36, as the greater value of the asset’s fair value in use, or its costs to sell (IAS 36.80). According to Hamberg

and Beisland (2014), the main reason for adopting the impairment-only approach is that the impairment test allows managers to signal private information on future cash flows.

1.7.3 Value Relevance

Value relevance can be defined as the ability of information disclosed by financial statements to capture and summarize firm value (Kargin, 2013). Value relevance researchers empirically investigate the usefulness of accounting information for investors. Many researchers have studied the fundamentals of value relevance and the value relevance of goodwill accounting information prior, and after, the adoption of IFRS 3. The results of Kargin's (2013) study show that value relevance of accounting information has improved in the post-IFRS period. Barth, Beaver, and Landsman (2000) note that accounting numbers can be described value relevant if they are significantly connected with the market value of the security, and if the information is relevant and reliable to investors. Furthermore, value relevance is composed by both relevance and reliability of the accounting amount (Barth et al. 2000). The core commonality in the definitions of value relevance is that an accounting amount is considered value relevant if it has a significant correlation with security market value.

Users of financial statements are interested in finding the correlation between accounting numbers and the market value of a company. Accounting information that is value relevant can be viewed and measured with the help of the statistical relationship between information obtained from the financial statements and the stock market values (Kargin, 2013). The goal of value relevance should thus not be to estimate the value of a firm as a whole, but rather to understand selected variables to comprehend the valuation of specified accounting numbers (Barth et al. 2000).

2 Theoretical Framework

This chapter presents theories that are relevant to the topic of this thesis. These theories give a broader knowledge of the subject and are essential in understanding the results of this study. Theories discussed in this chapter include, goodwill accounting treatment, IFRS 3, impairment testing, negative goodwill and the value relevance of goodwill. These theories have a strong connection to each other and offer valuable information about the core principles of this thesis.

2.1 Goodwill Accounting Treatment

Goodwill is an intangible asset embodying future cash flows from the unidentifiable assets bought during the acquisition of a company. The unidentifiable assets cannot be individually assessed or recognized (IFRS 3). The accounting treatment of goodwill appears to divide the opinions of researches and accounting professionals. Goodwill accounting treatment can be divided into three diverse categories (Seetharaman, Balanchandran & Saravanan, 2004). Firstly, goodwill ought to be written off against retained earnings instantly after the acquisition as an alternative of capitalization and arbitrary amortization that understate future earnings. An instant goodwill write off related to the company at the time of acquisition will eventually fade out since the future cash flows obtained from the company will eventually decline in significance. Furthermore, researchers argue that goodwill should not be taken into account since the valuation of goodwill is difficult and it is impossible to sell goodwill separately (Seetharaman et al., 2004).

The second school of thought represents the previously used accounting treatment for goodwill in Finland, which requires that goodwill should be amortized during a reasonable time period (Seetharaman et al., 2004). This school of thought represents the principal function of accounting where cost and income are matched. Methodological amortizations of goodwill are used to match the cost of obtaining profit from the acquisition (Seetharaman et al., 2004).

The third opinion is that goodwill should not be written off, unless the impairment test supports the impairment process. According to the supporters of this view, goodwill should not be written off unless there is evidence gained from the impairment test that the value of goodwill has declined. The researchers further indicate that the difficulty lies in valuing goodwill, especially the precise amount to which goodwill has declined to. Therefore, the management must have robust evidence that the underlying value of the cash-generating unit has declined in value. (Seetharaman et al., 2004). This view supports the views of the IASB and represents the current goodwill impairment policy.

Johnson and Petrone (1998) find that goodwill can be defined from two different perspectives, the top-down perspective, and the bottom-up perspective. In the top-down perspective, goodwill is viewed as a component of a larger entity. Goodwill can therefore be viewed as the anticipated future earnings from the investment made in the acquired company. According to Johnson and Petrone (1998), the acquirers' investment is broken down, and the identifiable assets are recorded and allocated. The remainder of the investment that was not allocated is considered to be goodwill. This concept is the current interpretation of how goodwill is determined and recorded in a business acquisition according to the IFRS. (IFRS 3; Johnson & Petrone, 1998).

In the bottom-up perspective, if the identified net assets of the acquired company are smaller than the price paid by the acquirer, it can be noted that future cash-generating units were gained in the acquisition in addition to the identified net assets. Johnson and Petrone (1998) divide the bottom-up perspective to six components: (1) excess of the fair value compared to the value of the acquired company's net assets in the accounts, (2) fair values of other acknowledged assets, (3) fair value of the going concern element, (4) fair value of synergies from acquiring a company, (5) overvaluation and (6) overpayment, or underpayment, by the acquirer. The researchers state that the core goodwill is formed from the going concern elements fair value (3) and the fair value of synergies from acquiring a company (4). Both of these components are positively related to the market value of a company. The residual components can sometimes be interpreted as a part of goodwill (1, 2, 5 and 6) (Johnson & Petrone, 1998). Henning, Lewis and Shaw (2000) found similar results in their study. Additionally, Henning et al. (2000) discovered that investors do not value the residual components as an asset and will likely write off the residual components.

On the other hand, Bloom (2009) has recognized two different types of goodwill, internally generated goodwill, and purchased goodwill. The former should not be brought into account because it is impossible to do so with the distinguished guidelines of double entry bookkeeping and historical cost-based accounting. On the other hand, according to Bloom (2009), there are no difficulties bringing the latter into account. Controversially, there has always existed dispute in the accounting treatment once purchased goodwill is recognized. Bloom (2009) criticizes the current impairment regimen and argues that internally generated goodwill can represent up to 50 percent of a company's total value.

The current IFRS accounting standard does not allow presentation of internally generated goodwill on the balance sheet. According to Stefanović, Petrović, Milojević, and Stanić (2014) this can mislead users of the financial statements about the company's value and financial ratios. IFRS refuses to recognize internally generated goodwill as an asset because it is not an identifiable resource controlled by the company and therefore cannot be measured reliably (IAS 36). Gore and Zimmerman (2010) reasons, that an asset must be a recognizable resource that exists independently of its valuation and therefore neither internally generated, nor purchased goodwill, should be accounted for on the balance sheet.

The discussion above illustrates the ongoing dispute between different views of goodwill. It can be stated that goodwill is an intangible asset, which cannot be detached from a company without the acquisition of the whole company, or a significant part of it. Goodwill usually consists of assets that are hard to measure as a monetary unit. These assets include reputation of the company, intellectual property such as employees, favorable business locations, valuable client contacts and other desirable benefits for which the acquirer is willing to pay a premium value.

2.2 Goodwill Accounting Rules According to IFRS 3

The current IFRS treatment requires that goodwill should not be annually amortized or written off unless the impairment test supports writing off the value of goodwill on the balance sheet. Finnish listed companies have followed the IFRS impairment policy since January 2005. Before the implementation of the impairment approach, Finnish listed companies followed the Finnish Accounting Standards (FAS). FAS define

goodwill in the same manner as IFRS. The difference lies in how goodwill is treated once recognized. According to FAS, goodwill should be amortized on a straight-line basis over a period of five years. The amortization weakens the company's result as the amortization is noted on the income statement. In some cases, the company may reasonably extend the amortization period to 20 years.

IFRS 3 demands that a company applies the acquisition method when accounting for business combinations. When applying the acquisition method, the acquirer should be identified, the acquisition date should be determined and recognized, and the identifiable assets should be recognized and measured. Additionally, liabilities should be calculated, and any non-controlling interest accounted for. It is essential for the valuation process to recognize and measure the value of goodwill. (IFRS 3.5).

Goodwill is seen as an indicator of excess future cash flow from either the acquired entity, or a combination of the acquired and acquiring entities (Hamberg & Beisland, 2014). Acquired goodwill should be recognized as an asset in the balance sheet and tested annually for impairments, or whenever there are indications of possible impairments (IFRS 36.10). Reporting financial information by the rules and regulations of IFRS could ease economic and financial integration because one of the most crucial issue for decision makers worldwide is to receive valuable and relevant information from financial reports (Kargin, 2013).

2.3 Goodwill Impairment Testing under IAS 36

According to IFRS, goodwill impairment testing should be done according to the IAS 36 *Impairment of Assets* -standard. IAS 36 strives to guide companies to carry their assets no higher than their actual recoverable amount (IAS 36). If a company presents an asset on the balance sheet and that asset is valued higher than its actual recoverable amount, which is either the value of the assets in use, or the cost of liquidating the asset, it needs to be impaired (IAS 36.1). Goodwill requires an annual impairment test where goodwill should be apportioned to the underlying cash-generating unit, or groups of the cash-generating units because it does not generate cash flows independently. Goodwill represents the future economic benefits that arise from assets acquired. The impairment of goodwill is a result in declining performance of the acquired business (IAS 36.104).

The goodwill impairment test must be performed annually, or more frequently, if there are indications of impairment losses.. There are external and internal indications for more frequent impairment testing than just once a year. External factors can be law regulations, drastic changes in market conditions or a sudden decline in the asset's market value. Internal factors can be physical damage to an asset comprising the cash-generating unit, or a decline in performance in a cash-generating unit. (Seetharaman, Sreenivasan, Sudha & Ya Yee, 2006; IAS 36).

When assessing goodwill impairments, a company needs to document and estimate the recoverable amount of goodwill for which the cash-generating units have been allocated to, and compare that amount with the carrying value of goodwill allocated on the balance sheet. The recoverable amount of an asset is defined as the greater value of the asset's fair value less cost of disposal, or the assets value in use (IAS 36). If the fair value less cost of disposal or its value in use is more than the carrying amount, it is not necessary to calculate the other amount since the asset is not impaired. (IAS 36.19).

It can be hard to measure the cash-generating units fair value less cost of disposal, since it might be that there is not a reasonable estimation of the true value for the asset. There might not even be a reasonable market to sell the asset. Therefore, the majority of companies test for impairments by determining the value in use (Shoaf & Zaldivar, 2005). In such cases, a company may use the value of the assets in use as its recoverable amount. An asset's value in use can be defined as the net present value of cash flows or other valuable benefits estimated to be generated from the underlying asset or a cash-generating unit for a particular owner (IAS 36.6). When a company determines goodwill impairment losses of an asset's value in use, it should reflect the following elements: an estimation of the value and timing of the expected future cash flow that the asset will derive, market risk and the liquidity factors associated with the business model. (IAS 36.30). After identifying the relevant future cash flows, a company needs to apply the proper discount rate to those future cash flows. When predicting future cash flows and the proper discount rate, it is essential to bear in mind the inflation rate that pushes prices up (IAS 36.31). Future cash flow estimates should relate to the current condition of the asset and any future enhancements the entity is not committed to should not be anticipated (IAS 36.44).

Goodwill impairment losses should be allocated to the cash-generating unit, or units, to reduce its carrying amount of the asset. Once recognized, an impairment loss should instantly reduce the carrying amount of goodwill. The reduction of an assets carrying amount should not, according to IAS 36.105 be below the greater of the assets fair value less costs to sell, its value in use, or zero.

According to Seetharaman et al. (2006), investors interpret goodwill impairment as poor managerial decisions resulting from overvalue paid in acquisitions. Vogt, Pletsch, Morás, and Klann (2015) suggest that manager's actions are associated with the recognition of impairment losses and can be characterized as incentives for earning management practices. Reporting discretionary goodwill impairment write offs has a negative association with earnings-based managerial compensation (Francis, Hanna & Vincent, 1996). The use of impairment tests enables goodwill paid without consideration to be written off as a loss. According to Sahut, Boulerne & Teulon (2011), if a company announces the impairment of its goodwill, it will result in a fall in its stock price as investors interpret it as negative information about the future economic benefits. The nature of the current impairment policy leads to drastic reductions in goodwill from the balance sheet, when the economy downshifts and future expectations decline (Gore & Zimmerman, 2010).

2.4 Negative Goodwill

The majority of the researchers have reached the consensus that goodwill is generated when a company pays an excess price over the net identifiable assets of the purchased company (Gore & Zimmerman, 2010; Vance, 2010; Johnson & Petrone, 1998). In some cases, a company makes a bargain purchase and acquires a company in which the values of the acquired identifiable net assets are higher than the purchase price. The bargain price paid of the acquisition is considered to be negative goodwill. Negative goodwill is vigorously discussed, since multiple researchers have objected the accounting treatment of negative goodwill. In an efficient market, bargain purchases do not frequently happen and this is why negative goodwill does conceptually not make sense. Comiskey and Mulford (2010) state that in a bargain purchase, the acquired assets might be valued higher than they actually are worth.. According to IAS 22.64 – *Business Combinations*, negative goodwill is presented as a

deduction from the company's assets, in the same balance sheet classification as positive goodwill. The company is therefore required to recognize the exceeding amount of the bargain as a gain immediately after recognition. (IFRS 3).

2.5 Value Relevance of Goodwill

According to Barth et al. (2000), the critical commonality in defining value relevance is that when an accounting amount is deemed value relevant, it has a significant association with a security market value. Value relevance studies use numerous valuation models to structure relevant tests, and the most common valuation model is the use of equity market value as a benchmark to assess how well particular accounting amounts reflect information used by the investor. This approach does not call for assuming market efficiency because share prices reflect investors' consensus beliefs, regardless of whether these beliefs are well founded (Barth et al. 2000). Therefore, the research does not assume that equity market values are true or unbiased measures of the true value of common equity. Nor does it assume that they reflect unbiased measures of true economic values of firms' assets and liabilities or income generating ability. The benchmark for assessing the characteristics of accounting amounts is the amount implicitly assessed by investors, not the true underlying value. The researchers using this approach are interested in studying how well accounting amounts reflect investors' consensus beliefs. (Barth et al. 2000).

It is noteworthy to mention that value relevance studies do not strive to estimate firm value with valuation models. Rather, researchers include certain variables to observe the valuation characteristics of particular accounting numbers. On the other hand, when using fundamental analysis, researchers pursue to include every variable that can help explain current or predict future firm value. (Barth et al. 2000).

Equity market values are used as benchmarks in leading accounting amounts and reflecting value relevant information. Further, the equity market values assess how well a particular accounting amount reflects information that is used by investors. Value relevance studies have examined whether specific accounting amounts reflect values of the firms' assets, earnings, and liabilities as measured by investors, and are hence reflected in equity prices.

Researchers conducting value relevance studies examine the association between accounting amount and equity market values. This is done by testing whether accounting amounts explain the cross-sectional variation in share prices. The valuation models that form the basis for the tests in the valuation literature, are developed in terms of the level of firm value (Ohlson, 1995; Barth et al. 2000). An alternative approach to this is examining changes in stock prices or returns. Selection of a given approach depends on the research question and econometric considerations. The critical difference between value relevance studies researching price levels and those researching price changes, or returns, is that the former is examining what is reflected in firm value and the latter is interested in reviewing what is reflected in changes in value over a specific period.

3 Previous Studies

Previous studies of goodwill accounting have focused the value relevance of goodwill, the value relevance of goodwill impairments and the relation between goodwill and market value. Studies about how the market perceives goodwill as an asset and the impact of goodwill impairments on stock prices have been conducted in different market settings worldwide. The majority of the studies have been conducted with data samples collected from companies in the United States (e.g. Chen et al., 2004; Hirschey & Richardson 2002; Li et al., 2011). Some have researched goodwill on the European market (e.g. AbuGhazaleh et al., 2012; Qureshi & Ashraf, 2013; Hamberg & Beisland, 2014; Hamberg, Paananen & Novak, 2011). It is worth noting, that there are some differences between the U.S. accounting standard regarding goodwill accounting and the IFRS standard. Nonetheless, the U.S. studies can be seen as significant and relevant regarding the purpose of this thesis. The studies mentioned above have been conducted both before, and after, the adoption of the IAS 36 and the IFRS 3 standard. Likewise, the studies conducted in the U.S. have been conducted both before, and after, the implementation of SFAS 142, which follows the impairment policy. In this chapter, prior relevant studies are introduced and presented.

3.1 Impairment of Goodwill

The primary objective of the financial statement is to give information to investors and market participants about the company's economic position and performance. The main objective of the financial report is, therefore, to provide useful information in making economical decisions. Theoretical research has examined the valuation role of accounting information and the issues on what kind of information is relevant for investors to value firms. Prior studies on goodwill impairments focus on either the information content approach, which measures the relationship between market reaction and the impairment loss announcements during a short period, or the association between impairment losses and earnings over a longer period of time (Alciatore, Dee, Easton & Spear, 1998). The prior studies from both categories suggest that goodwill impairments are value relevant to investors and other users of the impairment information.

Goodwill impairment researches have ample evidence that asset impairments are related to negative contemporary stock price changes (e.g. Bartov, Lindahl & Ricks, 1998; AbuGhazaleh et al., 2012). Asset impairments appear to affect future cash flows undesirably. Consistent with this evidence, multiple studies that researched the announcement of goodwill impairment losses indicate a correlation to negative changes in stock prices (e.g. Bens, Heltzer & Segal, 2011; Hirschey & Richardson, 2002; Li et al., 2011).

Hirschey and Richardson (2002) indicate that goodwill impairment announcements are typically negative, material and decrease the company's stock price by 2-3 percent. The study is conducted on the American market between 1992 and 1996. At that time, impairments of goodwill were conducted in addition to amortizations, which indicates that reactions were presumably stronger compared to the impairment-only approach. The study proposes that the negative association between goodwill impairment and stock price embody the connection between accounting numbers and market value. Hirschey and Richardson (2002) provide evidence that a negative stock price is followed after a goodwill write off announcement on a two-day period around that announcement, as well as consistently negative returns during long-term pre- and post-announcement periods. Investors value goodwill write off decisions as meaningful information about changes in expected future earnings of a company. The majority of the write off announcements were released at the same time as other significant information was released. Further, Hirschey and Richardson (2002) observed that in some occasions negative stock price effects occurred before the announcement of the impairment, indicating that investors partially anticipated the impairment loss.

Li et al., (2011) studies the market reaction to the announcement of goodwill impairment on a data set from the U.S. The research discovered a negative association between the announcement of goodwill impairments and market reactions. In addition, the study found that investors tend to update their financial position of a particular stock following the impairment announcement. On the other hand, their study is constructed using data from both pre- and post-impairment era. The results indicate that the negative reaction on market price was smaller in the post-impairment period. Similarly, Bens et al. (2011) observe negative stock returns in conjunction with goodwill impairment in a study conducted on the American market.

Criticism is encountered within researchers and accounting professionals regarding the current goodwill impairment method. Bugeja and Gallery (2006) claim in their study that investors do not consider goodwill an asset with future economic prospects two years hence the acquisition. The findings are controversial with the rules of IAS 36 that declares that goodwill is prohibited to be written off until an impairment test show that an impairment loss is needed. Bloom (2009) indicates that the goodwill impairment regime is too conclusive. According to IAS 36.124, the reversal of impairment loss recognized for goodwill is forbidden.

AbuGhazaleh et al. (2012) indicate in their study, conducted on the top 500 UK listed companies between 2005 to 2006, that goodwill impairment announcements affect the market value of a company in a negative way. The researchers use an ordinary least squares (OLS) regression model to study goodwill impairment losses. The sample data consists of 528 firm-year observations after the adoption of IFRS 3. The results indicate that goodwill impairments are viewed value relevant and suggest that a firm's market value declines after the impairment announcement is made public. The study also finds that through the IFRS 3 standard, managers have a higher probability to convey privately held information about the economic performance of the company by using their accounting discretion opportunistically.

Lapointe-Antunes, Cormier, Magnan (2009) investigate the value relevance of goodwill impairment losses on the Canadian market, followed the adoption of the revised goodwill standard in 2002. The study uses an OLS regression to study the value relevance of goodwill impairments. The researchers present that goodwill impairment announcements cause a decline in a company's market value suggesting that investors view goodwill impairments as value relevant. The results specify that when evaluating companies, investors incorporate goodwill impairments losses into their valuation assessments.

The results of Lapointe-Antunes et al. (2009) further indicate that investors evaluate financial statements for information about goodwill impairments, and compare that information with the information provided by the entity. If the firm reports a goodwill impairment loss, it is considered more relevant when that information is consistent with investors' estimations. Additionally Lapointe-Antunes et al. (2009) note, that a

knowledgeable audit committee reduces the opportunity for managerial discretion in companies.

Chen et al. (2004) provide further evidence in their study conducted in the United States under the impairment-only regime. The research focuses on examining the market reaction to goodwill write off decisions. The researchers conclude that the value relevance of goodwill after impairment charges increase significantly. The study is conducted after the adoption of SFAS 142 standard, which provides guidance that is more specific, compared to the previous standards in determining the amount and timing of recognized goodwill impairments.

Chen et al. (2004) indicate that goodwill impairment, instead of amortization, might provide more useful and value relevant information to investors. Furthermore, the researchers find supporting evidence on the negative capital market reaction to goodwill impairment announcements and prior anticipation of impairment losses. Elliott and Shaw (1998) suggest that asset impairments are quite large and infrequent and that they are reported mostly in the fourth quarter. Similarly, Ojala (2007) argues that the impairment loss recorded is one or two years behind the actual impairment.

Hamberg et al. (2011) use Swedish data to investigate the consequences of the adoption of IFRS 3 and stock market's reaction. The study is conducted on data sets both before and after the IFRS 3 adoption in 2005. The results of this study indicate that after the adoption of IFRS 3, reported earnings increased. The cause of this, according to Hamberg et al. (2011), is that capitalized goodwill increased substantially because impairments under the IFRS are considerably lower than goodwill amortizations and impairments made under the Swedish GAAP combined.

The study notes that firms with considerable amounts of goodwill in their financial statement experienced a substantial increase in earnings after the IFRS 3 adoption. Investors revalued goodwill-intensive firms significantly upwards in the seven-month period surrounding the IFRS adoption. On the other hand, firms with no capitalized goodwill yielded considerably lower abnormal returns. The research states that when investors evaluated goodwill-intensive companies, they focused on the bottom line earnings and saw the improved earnings as lucrative, regardless of the underlying cash flows. Investors could, therefore, be seen as naive because they are unable to see the

lag between goodwill impairment and the economic impairment of goodwill. (Hamberg et al., 2011). The study further states that the average goodwill balance has doubled from 2004 compared to 2007. The increase is caused by larger acquisitions of goodwill in 2006 and 2007, the retroactive implementation of IFRS 3, and the disappearing goodwill amortizations under IFRS 3 (Hamberg et al., 2011).

3.2 Managerial Discretion

Goodwill impairments are of the same character as other asset impairment decisions, but the intangible nature of goodwill is likely to increase management's discretion. Beatty and Webber (2006) reason that there is an increasing concern regarding the disclosed quality of goodwill information, and that the information is often presented opportunistically. They find evidence that a firm's decision to accelerate or delay the recognition of the impairment loss is related to managerial incentives. The study also indicates that if the company has debt covenants affected by impairments, they are less likely to accelerate the recognition of goodwill impairments. In contrast, companies that have a CEO with a short tenure, or a high incomes multiple, were likely to accelerate the recognition of a goodwill impairment.

Li and Sloan (2012) argue that with the elimination of the periodic amortization of goodwill, the discretionary write off becomes the only instrument through which the benefits created by goodwill are charged to earnings. Given the complicated situation in verifying the fair value of goodwill, it is possible that the company's management will use this new discretion opportunistically. Li and Sloan (2012) found that managers exploit the discretion granted by SFAS 142 to delay goodwill impairments.

Hamberg and Beisland (2014) studied the value relevance of the IFRS 3 standard and goodwill accounting in a European setting. The study focuses on the value relevance of goodwill accounting on the Swedish market during a nine-year period 2001 to 2010, mostly focusing on the differences between the Swedish GAAP and the IFRS 3 standard. The empirical evidence suggests that capitalized goodwill has increased during the study period, due to the eliminations of goodwill amortizations. They also found that the size of goodwill impairments decreased, both in absolute value and in relation to book value after the IFRS adoption. Furthermore, they discovered that

goodwill impairments are not statistically associated with stock returns and prices under the IFRS 3 regime.

Further, Hamberg and Beisland (2014) indicate that the impairment regime introduced in 2005 has lost value relevance compared to the Swedish GAAP. They suggest that the declining impairment value relevance results from the opportunistic management behavior after the introduction of IFRS 3. The management evaluation not to impair goodwill might be explained by agency-cost incentives, rather than by the operating performance of the cash-generating unit (Hamberg & Beisland, 2014). The managerial discretion and stock market performance has widely been discussed since the new IFRS 3 standard provide managers with discretion to determine fair value to an asset without an actual market for the asset (Hamberg & Beisland, 2014).

Knauer and Wöhrmann (2016) found in their study conducted under SFAS 142 and IAS 36 between 2005 and 2009, that unexpected goodwill write offs reveal net information to investors. They investigate the information content of goodwill impairment losses and the managerial discretion associated with the announcement. The study indicates that legal protection can limit management discretion and enhance the validity of goodwill impairment information.

Sun (2016) examines the relationship between managerial ability and goodwill impairment. The study uses regression analysis to reveal the association between managerial ability and goodwill impairments. The result suggests that managers with higher skill play a significant role in preventing, or reducing, goodwill impairment decisions. The regression analysis reveals a negative relationship between managerial ability and goodwill impairment.

3.3 Goodwill and Market Value

Researchers have extensively conducted studies regarding the market reactions after acquisitions, and the relationship between recorded goodwill and economic performance. Bugeja and Gallery (2006) studied a sample of 136 companies on the Australian market during the period 1995 to 1999. The research focuses on identifying and valuing the relevance of recently acquired and older goodwill. The empirical evidence implies that goodwill acquired recently have informational value, unlike

previous acquisitions that show no future economic benefit. The market value is associated with newly acquired goodwill in the observation year and the previous two years. The reason behind these results, according to Bugeja and Gallery (2006), is that the benefits of the acquisitions are reflected in normal operations, and not in the goodwill asset itself. Another reason might be that the company fails to achieve the expected improvements in performance from the acquisition and therefore the goodwill value needs to be decreased.

The results of Bugeja and Gallery's (2006) study indicate that capitalized goodwill is not valued relevant after two years following the acquisition. These results are inconsistent with the IFRS standard, mainly because if goodwill does not have a market value two years after the acquisition, goodwill should not be sustained on the balance sheet. This means financial statements with older goodwill do not provide value relevant information to investors.

Jennings et al. (1996) provide an extensive study about the correlation of goodwill accounting numbers and the market value of equity, during the period 1982 to 1988. The research is conducted using a data set from the U.S. Jennings et al. (1996) seeks to find how intangible assets, and specifically how goodwill, is valued by the market. This is done by conducting a regression analysis of the data. The study investigates if goodwill should be capitalized or written off, at the time of the acquisition. If there is a relation between expected future profits from the purchased goodwill, and its cost beyond the date, goodwill should be recognized. On the other hand, goodwill should be eliminated from the balance sheet, if the relationship does not exist.

The researchers use multiple regression analysis that associated the market value of equity to the firms accounting net assets. Results from the regression analysis state a strong positive cross-sectional correlation between equity values and recorded goodwill asset amounts, after controlling for other components of net assets. (Jennings et al., 1996).

Purchased goodwill is interpreted as positively associated with equity value, while goodwill amortization is negatively associated with equity value for a cross-section of companies. However, Jennings et al. (1996) note that the evidence regarding the negative association between amortization and goodwill is somewhat weak, and that

the relation between equity values and goodwill amortization may vary significantly across firms. The outcome of this study suggests that investors, and the market, value goodwill as an asset with weak evidence that goodwill is viewed as a negative asset. The researchers determined that capitalization and a yearly evaluation of goodwill is the best way to represent a firm's resources and performance.

In conclusion, Jennings et al. (1996) suggest that goodwill impairment might provide more useful and value relevant information to the market than the amortization method. Moreover, empirical evidence can be found that state that goodwill amortizations offer little value to investors (e.g. Jennings et al., 2001; Moehrle et al., 2001).

Similarly, Jennings et al. (2001) provide empirical evidence that goodwill amortization does not provide value relevant information to investors. The amortization simply makes it harder for investors to interpret future earnings estimates. The results of Jennings et al. (2001) support the abolishment of goodwill amortization, which increases the usefulness of accounting information.

Qureshi and Ashraf (2013) research the association between capitalized goodwill and the market value of listed companies in the UK between 1998 to 2003. The research uses a market valuation model that includes both balance sheet and income statement information, after controlling for the valuation effects of other intangible assets such as research and development and advertising. Qureshi and Ashraf (2013) criticize the previous studies because, in their opinion, goodwill captures the effects of research and development, and advertising, and therefore includes these variables in their study. They further use earnings and company book value as explanatory variables. The empirical results propose a robust positive association among capitalized goodwill and firm market value. The findings indicate that investors value the excess price paid in business acquisitions and the future cash flows it is expected to generate.

3.4 Goodwill and Economic Performance

The method of compiling the financial statements has an essential impact on the economic fundamentals that can be calculated with the help of the financial statement. Profitability ratios are on average higher on an IFRS financial statement, than on a

financial statement that uses local GAAP. The price-earnings ratio (P/E), on the other hand, is generally lower on an IFRS financial statement. This is primarily due to the fact that goodwill is not amortized on the IFRS financial statement and therefore the income statement shows more profit than if amortizations would have been done (Lantto & Sahlström 2009).

However, the impact of re-evaluations related to the introduction of the new standards on firms' market values are not simple. In particular, there is a high risk associated with intangible assets that affect the capital market. Choi, Kwon, and Lobo (2000) argue that one dollar that is associated with intangible assets is considered less worthy than one dollar allocated to tangible assets.

Vance (2010) researched if goodwill contributes to performance, and if measurable, whether the contribution of goodwill to performance varies across industries. Previous studies (Jennings et al., 1996) indicate that goodwill is consistently valued equal, or even higher, than other assets and that goodwill is valued for non-manufacturing companies, but not for manufacturing companies. Vance (2010) argues that goodwill should be treated as a rent-generating asset if goodwill contributes to profitability. If goodwill is a rent-generating asset, then firms with goodwill should produce a return on asset similar to companies without booked goodwill, Vance (2010) argues.

Vance's (2010) study is performed by investigating return on asset (ROA) from companies in the U.S. with, and without, goodwill capitalized on their balance sheet during a period of 1995 to 2004. The dependent variable is ROA, while the independent variables include industry, companies with under 20 percent of their assets in goodwill, companies with 20 percent or more of their assets in goodwill, and companies without goodwill. The mean and standard deviation of ROA were calculated and tested for statistical significance.

The results indicate that goodwill can be viewed as a rent-generating asset and that on average companies with goodwill on their balance sheet perform at least as well as companies without goodwill on their balance sheet. Vance (2010) also notes that companies with high amounts of booked goodwill generate a return on assets at least as great as companies with no booked goodwill.

Comiskey and Mulford (2010) argue that share price declines are the main cause of goodwill impairments. The second most significant factor companies identified as a goodwill write off decision is increased competition from unexpected rivals. This indicates declines in revenue of the cash-generating units that include goodwill (Comiskey & Mulford, 2010). The result suggests that it is not goodwill that causes the decline in market value, but instead, the decline in market value causes goodwill impairments.

Sahut et al. (2011) study goodwill accounting in the European setting before, and after, the adoption of the impairment regime. Sahut et al. (2011) research the information content of intangible assets under the IAS 36 and IFRS 3 regime, compared to each country's local GAAP. The study employs a multivariate regression model for a sample of 1855 European listed companies during 2002 to 2007. The purpose is to investigate the association between the market value and the book value of intangible assets, including goodwill. The research further studies, if the balance sheet value of intangible assets grew after the adoption of IFRS 3. Table 1 shows that intangible assets and goodwill have increased significantly in Finland compared to the rest of Europe.

Table 1. Balance sheet changes of intangible assets.

	Europe	Finland
Intangible Assets	21.8 %	84.4 %
Goodwill	23.6 %	36.9 %
Total Intangible Assets	23.1 %	47.3 %

Table 1. Changes in the balance sheet values of intangible assets from local GAAP and IFRS using data from European and Finnish listed companies. The difference is calculated between countries local GAAP for 2002-2004 and IFRS 2005-2007 accounting numbers. Data source Sahut et al., 2011.

The study indicates that the amounts of intangible assets increased on average, in the European setting, by over 21 percent, while the amounts of goodwill grew by 24 percent during the research period. In Finland, the respective numbers are 84.4 percent and 36.9 percent. (Sahut et al., 2011).

The study also found that after the adoption of IFRS, intangible assets have more informative value in explaining share price and stock market returns. However, the financial information indicates that capitalized goodwill is perceived as less relevant under IFRS than under local GAAP. The identified intangible assets capitalized on the balance sheets provide more value relevant information to shareowners than undisclosed intangible assets that have been allocated into goodwill in all of the sample countries with the exception of Italy and Finland. It is important to note that for Finnish listed companies, the significance of goodwill on market value has increased, but the effect of intangible assets is not statistically significant (Sahut et al., 2011). This is assumed to be due to the fact that investors in Finnish companies do trust information retained from intangible assets. Mostly on other European stock exchanges, the opposite is true, and investors consider the fair value of intangible assets to be more relevant than goodwill. (Sahut et al., 2011).

In Norway, a study conducted by Beisland and Kjell (2015) presents that the fair value principle and the wider valuation options for intangible assets have weakened the relevance of the balance sheet as a whole, and increased the relevance of returns to share prices. The relevance of returns is attributed to the fact that IFRS permits the recognition of intangible assets in the balance sheet more broadly than the Norwegian accounting standard. The fair value principle has further increased the significance of equity values in relation to stock prices. Inconsistent with Beisland and Kjell's (2015) study, Oliveira et al., (2010) find that the IFRS introduction provides information that is slightly more relevant to investors than the countries' local GAAP, but the difference is not statistically significant.

3.5 Summary of Previous Studies

This chapter has presented previous studies relevant to the field of value relevance of goodwill impairments. The prior studies have been conducted using various methods and presents a wide range of evidence about goodwill accounting in different market settings.

To summarize the relevant studies in the field, it can be noted that the results of prior studies regarding the value relevance of goodwill impairments are somewhat erratic. Inconsistency can be found in results regarding whether the implementation of the

IFRS standard and the introduction of the impairment-only regime has increased value relevance of goodwill. However, it can be concluded that goodwill is considered to be value relevant to investors.

The impairment policy of goodwill accounting is a subject to significant discretion since estimations of the recoverable amount of goodwill are unverifiable and subjective. Therefore, firms might be likely to use goodwill impairment testing opportunistically for earnings management purposes. It can be noted that managerial discretion has increased after the introduction of IFRS 3, making it easier for the management to act opportunistically (e.g. Li & Sloan, 2012; Hamberg & Beisland, 2014; Beisland and Kjell 2015).

Sahut et al. (2011) argue that the introduction of the impairment-only regime provide less reliable information to investors in a European setting, than the prior amortization regime. On the other hand, it is noted that the impairment-only regime offers more relevant and reliable information to the users of financial statements (e.g. AbuGhazaleh et al., 2012; Oliveira et al., 2010; Jennings et al., 1996; Lapointe-Antunes et al., 2009). The findings might indicate that managers might be able to affect the value of the firm by manipulating goodwill impairment losses (AbuGhazaleh et al., 2012). It is interesting to note, that the significance of the IFRS standard in Finland, according to Sahut et al. (2011), conclude that Finnish investors find the impairment-only policy more value relevant than other European countries.

The diverse results regarding the prior studies are partly due to the different methods used in the studies. In addition, many studies may have difficulties with the fact that the results might be distorted due to short-term review periods in which the transient and idiosyncratic effects of the stock market are emphasized in relation to the introduction of IFRS. The findings on goodwill balance sheet values indicate that after the adoption of IFRS, companies' intangible assets have grown substantially (Hamberg & Beisland, 2014). It will be interesting to find if this trend continues between 2012 and 2017, or does the sudden increase in goodwill balance value only reflect the migration stage of IFRS in 2005.

4 Research Method and Data

In this chapter, the research method and data are presented. In addition, the regression model and variable descriptions are introduced followed by a brief introduction of the goodwill data set used in this study.

4.1 Method

It is essential to an academic research that the researcher, at an early stage, solves critical issues regarding the study (Creswell, 2009, 113). These issues, according to Creswell (2009, 113) are the aim of the research, identification of the research questions, the use of a theoretical framework, hypotheses development and the choice of the research method. Other issues regarding academic research are the use of previous literature to frame the research, term definitions, presenting the research limitations, defining the significance of the study and developing a research proposal (Creswell, 2009).

Following the steps of Creswell (2009), firstly this research presents the purpose of the study. Secondly, the research question is identified. Thirdly, the theoretical framework is presented and discussed. In this study, quantitative methods are applied, since this study uses numbers as data. This supports the view of Lock and Seele (2015), who characterized quantitative research as a method where differences in variables are measured and tested using statistical methods. The data are further analyzed to obtain results according to the aim of this study.

Unlike quantitative methods, qualitative methods are used when studying the meaning and context of what is said, done, or intended by people (Lock & Seele, 2015, 26). It is noteworthy to mention that quantitative methods can be used when analyzing qualitative data, meaning that mixed method approaches can be used in academic research (Bryman & Bell, 2011, 628). Mixed methods combine the integration of qualitative and quantitative research and data in a study. Creswell (2009) explains that in multiple studies, both data in terms of words and numbers are used, which means that mixed methods are applied. However, in this study, no qualitative methods are used since no data are described in words, such as interviews or surveys.

Bryman and Bell (2011, 26-27) note that quantitative methods emphasize quantification when collecting and analyzing data. The researchers further indicate that quantitative approach test theory, whereas qualitative approach generates theory. This study will test theory, which further supports the use of quantitative study. Further, Bryman and Bell (2011, 27) indicate that quantitative research strategy is positivistic in its nature. Crowther and Lancaster (2008) note that a positivistic study usually adopts a deductive approach, which requires the researcher to develop a hypothesis based on existing theory. After the development of the hypothesis, the researcher is required to design the research strategy to test the hypothesis. A positivistic study views that the researcher needs to concentrate on the facts (Crowther & Lancaster, 2008). It can be concluded that this study is positivistic in its character.

Like other positivistic scientific studies, this study faces related econometric shortcomings; firstly, positivistic studies rely on experience as effective source of knowledge. Secondly, positivism assumes that a process can be viewed as a definite source of action between individuals and its relationships. Finally, the results of positivistic studies are simply descriptive, and do not have an understanding into in-depth problems (Crowther & Lancaster, 2008).

4.2 Data and Sample Firms

This research is constructed using information of companies listed on the Nasdaq OMX Helsinki Stock Exchange during 2012 to 2017. On December 31, 2017, there were 136 companies listed on the Nasdaq Nordic OMX Helsinki Stock Exchange. This results in 816 firm-year observations. There were 102 observations that belonged to the financial industry and were therefore excluded because their financial reporting processes, as regulated industries, are not similar to other industries (AbuGhazaleh et al., 2011). The distinction between financial companies and non-financial companies are based on the industry classification benchmark system provided by the OMX Helsinki Stock Exchange. After excluding companies from the financial sector, the sample consists of 714 firm-year observations. Finally, 204 observations with no positive goodwill value during the research period, and 120 observations that lacked the required data to run the tests are excluded from the sample. After excluding companies that did not meet the criteria of this study, as presented above, the final

sample consists of 390 firm-year observations, comprising 146 write offs (37.4 percent of the sample) and 244 non-write off observations (62.6 percent of the sample).

Table 2 presents the sample construction process.

Firm- Year Observations	
Listed companies on the Nasdaq OMX Helsinki Stock Exchange on 31.12.2017	816
(-) companies related to financial industries	-102
(-) companies that did not report any goodwill	-204
(-) companies with inadequate data	-120
Observations	390
Companies that report goodwill impairments	146 (37.4%)
Companies that did not report goodwill impairments	244 (62.6%)

Table 2 introduces the observations used this study.

Financial data for sample firms are obtained from Thomson ONE Worldscope database, supplemented with the firm's annual reports when necessary. The research solely consists of companies using IFRS guidelines in their financial statements. The data are collected and analyzed on Excel and then transferred to SPSS Statistics for further analysis.

4.3 Variable Descriptions

Value relevance research designs are subject to inferential problems stemming from correlation-omitted variables. Determining which variables to use in the estimation equation is a critical issue to value relevance studies. The research question plays an essential role in the selection of variables and is guided by the valuation model that

forms the basis for the estimation equation. It is noteworthy that not all omitted variables pose inference problems. Omitted variables that are uncorrelated with variables of interest do not represent inference problems. Omitted variables that correlate with the variables of interest do not pose inference problems if either their omission is a feature of the research design or the accounting numbers under research are intended to summarize the information contained in the omitted variables. If there are several omitted variables, outside of those already mentioned, their omission may cause inference problems. It is therefore essential to determine whether inferences are affected by their exclusion. (Barth et al., 2000).

To examine value relevance of goodwill impairment losses, this research uses a similar regression model that was used in the study of AbuGhazaleh et al. (2012). This valuation model uses accounting-based data to assess the purpose of this study. The valuation model was initially proposed by Ohlson (1995). The choice of this regression model is motivated by the fact that prior studies with similar hypothesis and similar regression variables use this particular regression model. The use of a multivariate ordinary least squares regression has many advantages. Firstly, the model is widely known in literature and therefore it requires brief technical explanations, which leaves room for conceptual analysis of the statistical results. Secondly, it allows extensive testing to be performed to evaluate the statistical significance and the explanatory power of the regression model, which allows the study to verify if the proposed model is valid or not.

Following AbuGhazaleh et al. (2012), the regression model is adjusted to break up goodwill impairment losses and the value of goodwill from year-end reported equity and earnings. I am going to use the following multivariate OLS regression model to evaluate the value relevance of goodwill impairment losses:

$$MVE_i = \alpha + \beta_1 BVE_i + \beta_2 NPL_i + \beta_3 BVGW_i + \beta_4 GWIL_i + e_i$$

Where:

MVE Measured as the company *i*'s market value of equity at the year-end when the goodwill impairment testing is conducted.

<i>BVE</i>	Measured as the company <i>i</i> 's book value of equity at year-end when the impairment testing is conducted subtracted with the balance sheet value of goodwill at the year-end of that same period.
<i>NPL</i>	Measured as the company <i>i</i> 's net profit or loss at the year-end when the impairment loss is capitalized on the financial statement plus the impairment loss acknowledged.
<i>BVGW</i>	Measured as the company <i>i</i> 's balance sheet value of goodwill at the year-end end when the impairment loss is capitalized on the financial statement plus the impairment loss acknowledged.
<i>GWIL</i>	Measured as the company <i>i</i> 's impairment loss of goodwill described and calculated as a positive number. For companies that report no goodwill impairment losses <i>GWIL</i> is measured as 0.

To reduce potential proportionality and heteroscedasticity problems that might harm the results of the regression analysis, all variables included in this study are deflated with the year-end total ordinary shares outstanding.

It can also be noted that when investors value future cash flows they use current earnings to predict the future. Therefore, I expect earnings (*NPL*) to have a positive correlation with the market value of a company. Similarly, the prediction of the book value of equity (*BVE*) is that it has a positive association with the market value of a company. Prior research presents evidence that capitalized goodwill on the balance sheet has a positive association with market value of a firm. This suggests that investors believe goodwill produces an economic value and generates future economic benefits for the company (Jennings et al., 1996; Henning et al., 2000). Consistent with prior research, I predict that the carrying value of goodwill (*BVGW*) is positively correlated with market value. Previous research (e.g. AbuGhazaleh et al., 2012; Chen et al., 2004; Lapointe-Antunes et al., 2009) report negative correlations between goodwill write offs, under the impairment-only regime, and share prices. Further, this research presumes a negative correlation between goodwill impairments (*GWIL*) and market value of equity (*MVE*).

The data used in this regression model are not a random sample, as it covers companies that have specifically been chosen from the Nasdaq OMX Helsinki Stock Exchange.

The data support the use of fixed effects estimation since panel data are being applied. The fact that the research data consist of balanced panel data supports the use of a fixed effects model. Further, the relationship between the dependent variable *MVE* and the explanatory variables are considered to be significant if the p-value is below 0.05.

4.4 Capitalized goodwill

Previously in Chapter 3, a more extensive background on previous relevant studies was presented. Goodwill has been studied in a broad manner both before, and after the adoption of the impairment policy. Some studies focus solely on the impact goodwill impairments have on market value (e.g. AbuGhazaleh et al., 2012; Jennings et al., 1996), some focus on the association between goodwill and market performance (e.g. Comiskey and Mulford, 2010, Sahut et al., 2011). In this study, I want to focus on the value relevance of goodwill impairments.

One objective of this study is to measure the capitalized goodwill balances of each company and provide information on how goodwill values have evolved during the research period. Before studying the value relevance of goodwill impairments, it is essential to evaluate changes in capitalized goodwill on the balance sheet across the whole sample from 2012 to 2017. Hamberg and Beisland (2014) stated that in their Swedish sample, average goodwill balance increased by 50 percent from 2003 to 2007.

Figure 1 presents the amount of goodwill capitalized on the balance sheet during the study period. The amount of goodwill capitalized on the balance sheet in 2012 was 16 358 million euros, and in 2017 it was 16,572 million euros. This indicates that during the study period, capitalized goodwill increased by only 1.3 percent on the balance sheet. Figure 1 notes that goodwill decreased 31.2 percent from 16,358 million euros in 2012, to 11,260 million euros in 2015. In 2016, goodwill balance value increased by 5,995 million euros, or 53.2 percent compared to the previous year. The drastic increase can be explained by Nokia Oyj's 5,487 million increase in its goodwill balance value.

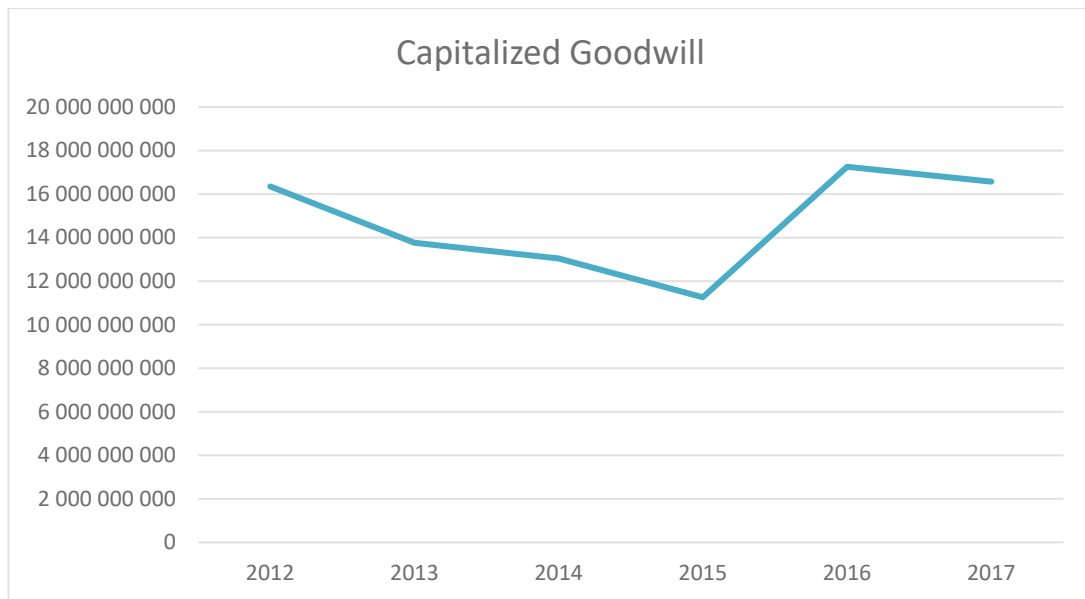


Figure 1. Capitalized goodwill during 2012 – 2017.

Out of the 65 companies studied, 48 percent of the companies gained goodwill during the study period, while 45 percent of the companies lost goodwill. Only five out of the 65 companies, or 8 percent had the same amount of goodwill at the end of the study period as they had in the beginning. The most notable reduction in goodwill value, measured in percent, was reported by Yit Oyj, which lost 98 percent of its goodwill during the study period. The most significant gain in goodwill, measured in percent, was reported by Siili Solutions Oyj, which increased its goodwill by 1,763 percent during the six-year study period.

In total, six companies lost more than 60 percent of their goodwill value between 2012 and 2017. On the other hand, 12 companies increased their goodwill value with more than 60 percent during the study period. A rapid gain in goodwill can indicate that a company is expanding, and is acquiring other businesses. It is important to note that if a company is increasing its total assets by acquiring other firms and the increase in total assets is due to a substantial portion of newly acquired goodwill, it could potentially lead to future asset-level instability.

Interestingly, the results are inconsistent with Hamberg et al., (2011) who report that goodwill balances has increased by 50 percent during the five-year study period between 2003 and 2007. It can be noted the growth in goodwill balances might be the cause of the abolishment of goodwill amortizations (Hamberg et al., 2011). In this

study, the trend of increasing goodwill does not continue as the time frame is different. Further, an explanatory factor for the 1.3 percent growth in goodwill balance value during the study period, might be Europe's uncertain economic situation. It can be noted, that economic downturns might lead to reductions in goodwill from the balance sheet, since future economic expectations decline (Gore & Zimmerman, 2010).

4.5 Goodwill impairers

Table 3 presents the annual goodwill impairers measured as percentage of the whole sample. As concluded, there were 146 impairment loss observations between 2012 and 2017, which represents 37.4 percent of the whole sample.

Table 3. Reported goodwill impairment loss.

Year	2012	2013	2014	2015	2016	2017
Reported goodwill impairment loss	27.7 %	55.4 %	33.8 %	27.7 %	27.7 %	52.3 %

Table 3. The reported goodwill impairment loss sample between 2012 and 2017.

It can be noted that in 2013 there were twice as many companies that reported impairment losses than in 2012. An explanation to this could be the economic downturn in Europe due to Greece's government-debt crisis. The crisis also affected Finnish companies and caused market shares of Finnish listed companies to fall in 2012. This evidence supports IASB's intention that goodwill impairment testing should be carried out if market conditions change drastically.

5 Findings and Discussion

In this chapter, the findings of this thesis will be presented. This chapter will introduce the results that were generated of the methods and data presented in the previous chapter. Firstly, I will present the descriptive statistics of the variables used in the regression analysis followed by the Pearson correlations matrix. Further, the results of the multivariate OLS regression will be presented, followed by a discussion of the results. Finally, the validity and reliability of this study is presented.

5.1 Descriptive Statistics

Table 4 presents the descriptive statistics for the OLS regression model that is being used in this research to examine the value relevance of goodwill impairments on the Finnish market. It can be noted that the average share price is 10.43 euros. The average book value per share before goodwill is 6.04 euros. The sample firms have an average net profit per share before goodwill impairments of 0.70 euros. The table illustrates that the goodwill per share prior to the recorded goodwill impairment loss is on average 2.21 euros. Furthermore, it can be noted that the goodwill impairment loss per share is on average 0.11 euros.

Table 4. Descriptive statistics of the sample firms.

Variable	N	Mean	Median	St. Dev.	Minimum	Maximum
<i>MVE</i>	390	10.4258	5.9537	10.91253	0.0019	47.2000
<i>BVE</i>	390	6.0439	2.1070	12.66511	-5.8081	138.8820
<i>NPL</i>	390	0.6997	0.3573	1.43641	-4.2126	15.7085
<i>BVGW</i>	390	2.2076	1.0400	3.62801	0.0100	19.7200
<i>GWIL</i>	390	0.1082	0.0000	0.42778	0.0000	4.4533

Table 4 presents the descriptive statistics of the variables that are being used in the OLS regression model. The variables have been deflated with year-end total ordinary shares outstanding.

The Pearson correlations of the multivariate OLS regression are introduced in Table 5. Pearson correlations describe the association between *MVE*, *BVE*, *NPL*, *BVGW* and *GWIL*. The purpose of this table is to present each variables correlation with the dependent variable *MVE*. The nearer the coefficient is to 1, the greater the association between the variables. If a coefficient is near 0, it presents a weak correlation between the variables. The coefficient is either positive or negative, which represents the direction of the relationship between the variables (Bryman & Bell, 2011, 347). As predicted, the book value per share (*BVE*), earnings per share (*NPL*), and goodwill per share (*BVGW*) have a significant positive correlations with share price (*MVE*). On the other hand, *GWIL* has a negative and insignificant association with share price (*MVE*).

Finally, the Pearson correlations between variables used in the regression model show no remarkable pair-wise correlations between the independent variables. The highest pair-wise correlation coefficient is 0.496, between *BVE* and *NPL*. From the results, it can be interpreted that multicollinearity, which can be seen as a factor that might disrupt the regression analysis, does not appear to be an issue.

Table 5. Pearson correlations of the study sample.

Variable	<i>MVE</i>	<i>BVE</i>	<i>NPL</i>	<i>BVGW</i>	<i>GWIL</i>
<i>MVE</i>	1				
<i>BVE</i>	.430**	1			
<i>NPL</i>	.473**	.496**	1		
<i>BVGW</i>	.274**	.160**	.126*	1	
<i>GWIL</i>	-0.025	-.170**	-.146**	-.368**	1

Table 5 presents Pearson correlations of the sample firms that form the base for the multivariate OLS regression.

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

5.2 Multivariate Regression Results

The results of the OLS regression model that has previously been presented in this study are provided in Table 6. The OLS regression table presents MVE as the intercept and shows the coefficients between the intercept and the independent variables. In addition, the regression table presents standard errors and t-values of the dependent and independent variables. The regression as a whole is tested for goodness-of-fit and statistical significance of the estimated parameters. Goodness-of-fit for the regression model is tested using adjusted R^2 , which measures the strength of the relationship between the model and the dependent variable. Additionally, the variance inflation factor (VIF) and the Durbin-Watson statistic test is performed on the data. VIF is an indicator of multicollinearity. If the VIF value is 1.0 there is no multicollinearity, and a value under 5 indicates an acceptable level of collinearity between the variables. The Durbin-Watson statistic is a test used to detect the presence of autocorrelation in the residuals from a regression analysis.

Table 6. Results of the multivariate OLS regression model.

	Prediction	Coefficient	T-statistics	P-value	VIF
Intercept		6.100	10.666	0.000	
BVE	+	0.213	5106	0.000	1.353
NPL	+	2.594	7.097	0.000	1.335
$BVGW$	+	0.752	5.548	0.000	1.171
$GWIL$	-	-4.036	-3.502	0.001	1.177
Adjusted R^2	32.5%				
Model F-test	47.914 P-Value < 0,001				
Durbin-Watson Statistics	2.199				

Table 6 presents the results of the multivariate regression model ($MVE_i = \alpha + \beta_1 BVE_i + \beta_2 NPL_i + \beta_3 BVGW_i + \beta_4 GWIL_i + e_i$).

The F-test suggests a high significance in terms of P-Value < 0.001. This means the sample data provide sufficient evidence that the regression model fits the data better

than a model with no independent variables. This means that the independent variables in the model improve the fit. The adjusted R^2 is 32.5 percent, which indicates that 32.5 percent, of the variation in share price (*MVE*) is explained by *BVE*, *BVGW*, *NPL* and *GWIL*, if all other factors are fixed. It is noteworthy to indicate that the F-test of the overall significance is the hypothesis test for this model. The F-test is statistically significant and it can be concluded that $R^2 \neq 0$, which indicates that the correlation between the model and the dependent variable is statistically significant.

The regression model further presents VIF, which is a formal measure of multicollinearity. As noted, there are no problems with multicollinearity in this study as $VIF < 1.335$. The Durbin-Watson statistic is 2.199, which indicates that there is no autocorrelation between the data since the value is between 1.5 and 2.5.

It can be noted that (*BVE*), earnings per share (*NPL*), and goodwill per share (*BVGW*) are positively correlated with share price (*MVE*). These results are consistent with the assumptions of this study. Further, the correlation between the dependent and explanatory variables are statistically significant ($p < 0.000$; $p < 0.000$ and $p < 0.000$). The evidence is constant with preceding research in the field (e.g. Jennings et al., 1996; AbuGhazaleh et al., 2012). The results of goodwill per share suggest that goodwill reported and capitalized by firms in Finland is value relevant and is perceived by users of financial statements to provide valuable information of future economic benefits. The results regarding goodwill impairment loss per share (*GWIL*) is both negative and significant ($p < 0.001$). From the results, it can be interpreted that that goodwill impairments are considered value relevant by investors. This suggests that goodwill impairment losses affect the market value of a company in a negative way.

The value relevance of goodwill impairment evidence is consistent with the predictions presented in this study. Further, it is also consistent with previous research in the field (e.g. Lapointe-Antunes et al., 2009; Chen et al., 2004; AbuGhazaleh et al., 2012). Consequently, it can be noted that this study provides evidence similar to previous studies but in a different experimental setting. The results further indicate that the adoption of IFRS 3 and IAS 36 provide valuable and relevant information to investors by allowing managers to reliably convey privately held information of future cash-flows to the Finnish market.

5.3 Discussion of the Results

The empirical evidence of the regression model obtains valuable statistical results. By providing information of 390 firm-year observations drawn from the Finnish market from 2012 to 2017, this research assesses the value relevance of goodwill impairment losses reported by the sample firms.

The results of the multivariate OLS regression on value relevance of goodwill impairments presents evidence that goodwill impairment losses are considered to be value relevant to investors on the Nasdaq Helsinki OMX Stock Exchange. The OLS regression presents that goodwill impairment losses have a statistically significant negative correlation with the market value of a company. The results are similar to prior value relevance of goodwill impairment research that has been conducted in different market environments. The results indicate that goodwill impairments are observed by investors to reliably measure the underlying value of goodwill. The empirical evidence suggests that the unexpected goodwill impairment announcements reveal new information, and investors revise their future economic expectations downward.

However, it can be noted that the impairment-only approach gives managers the chance to act opportunistically. Managers may try to convey information about the future cash flows by using their accounting discretion. (e.g. Li & Sloan, 2012; Hamberg & Beisland, 2014; Knauer & Wöhrmann, 2016). The results of this study indicate that managerial discretion is used to deliver privately held information to investors, and therefore goodwill impairment losses and the market value of a firm have a significant association with each other. This indicates that managers might use goodwill impairment losses as a tool for market value manipulation.

The use of reporting goodwill at its fair value increases the timeliness of the results regarding goodwill impairments as market participants obtains current information about the value of goodwill. This strengthens the ideology of IASB, making balance sheet values more value relevant and increases investor aptitude to base their corporate evaluations on fair value measures.

The results regarding goodwill impairment losses are statistically significant at a $p < 0.001$, which indicates that there is only one chance in 1.000 of rejecting the null

hypothesis. This indicates that the correlation between the variables is strong and is not affected by chance (Bryman & Bell, 2011). Further, the dependent variables *BVE*, *NPL* and *BVGW* are statistically significant providing evidence that they improve the fit of the regression model. It can therefore be concluded that book value of equity, net profit and capitalized goodwill have a positive impact on a company's market value and the independent variables can therefore be viewed as value relevant. The predictions made earlier in this study are therefore in line with the results.

The multivariate OLS regression in this study provides similar results to those of AbuGhazaleh et al. (2012). One of the differences between the studies is that the R^2 of AbuGhazaleh et al. (2012) is higher than what I found using evidence from the Finnish market. Therefore, it can be noted that in the study of AbuGhazaleh et al. (2012) the independent variables describe a higher portion of the variance in stock price than what I found in my study. Nevertheless, the regression model presented in this study is deemed significant and value relevant since the F-test calculating the overall significance of the regression model is $p < 0.001$. Autocorrelation and multicollinearity are not considered a problem in this study, which further supports the regression model.

IASB's main goal when issuing IFRS 3 and IAS 36 was to improve the international accounting treatment of goodwill, and provide valuable and more beneficial information of the financial statements than the previous cost approach. The results of previous studies (e.g. Beisland and Kjell, 2015; Oliveira et al., 2010) suggest that the adoption of IFRS has increased financial statements value relevancy. It can be noted that this study, does not research the difference in value relevancy between pre-IFRS and post-IFRS periods. Nevertheless, according to this study, goodwill impairments after the adoption of IFRS are considered to be value relevant on the Finnish market environment and therefore provide valuable information to market participants.

5.4 Reliability, Replicability and Validity

It is vital to ensure reliability, replicability and validity of quantitative research approach. Reliability measures whether the results of a research are repeatable (Bryman & Bell, 2011, 41). Reliability can be characterized in three different categories: stability, internal reliability and inter-observer consistency (Bryman &

Bell, 2011, 158). Stability measures whether the results are stable over time. The key issue in internal reliability is whether the indicators that measure scores tend to be correlated with scores on other indicators. Inter-observer consistency comes in place when there are a large number of subjective judgments involved in recording observations or translations of data (Bryman & Bell, 2011, 158). This study uses a six-year study period, which is similar to prior studies conducted in the field (e.g. Jennings et al., 1996; Qureshi and Ashraf, 2013). This strengthens the study's reliability, as data between different variables tend to be stable over time.

The key concept of replication is that an academic study needs to be replicable. This study follows the replication description of Bryman and Bell (2011, 41-42), with the fact that all research procedures and variables are described, and the source of the data has been presented accordingly.

Validity is described by Bryman and Bell (2011, 42), as the most important factor of academic research. The concept of validity focuses on the truthfulness of the conclusions that are generated from the study. Validity can be distinguished in measurement validity, internal validity, external validity, and ecological validity. Measurement validity measures the fact whether the concepts presented actually measure the concepts it is supposed to be measuring (Bryman and Bell, 2011, 42). In this study, measurement validity is enhanced by the fact that the regression models show a P-value of 0,001, which means that the regression is statistically significant. This supports the validity of this research hence the independent variables in the model improve the fit.

Internal validity is concerned whether a conclusion that includes a causal association between two, or more, variables actually are sound (Bryman & Bell, 2011, 42-43). In this study, internal validity has been tested with the help of significant tests that measure internal causality between variables. Further, this study has incorporated variables that are common in prior theories and studies to improve the internal validity of this research.

External validity measures whether the results of a particular study can be generalized past the specific research context (Bryman & Bell, 2011, 43). This study incorporates data from Nasdaq OMX Helsinki Stock Exchange, and therefore it only studies

goodwill impairment losses on the Finnish market. However, all European listed companies incorporate IFRS standards in their accounts, which support the fact that the results can be viewed relevant not only in Finland but also in a European context.

Ecological validity is concerned whether academic research produces findings that are technically valid but have little in common with people's ordinary lives (Bryman & Bell, 2011, 43). Bryman and Bell (2011, 43) describe that invalid ecological results only provide value to scientist's arsenal of data collection and analytical tools. This study supports ecological validity by delivering valuable information about goodwill impairments to investors. The results can therefore be used when undertaking investment decisions.

6 Conclusion

In this chapter, this thesis will be summarized. In addition, I will discuss the conclusion of the empirical study and present the contribution and limitations of this research. Finally, further research suggestions will be proposed.

6.1 Key findings

The purpose of this thesis is to study the Finnish equity market and evaluate if investors view goodwill impairment losses as value relevant. This study asks to answer the question; do investors treat goodwill impairments as value relevant? In order to examine the purpose of this study, quantitative research has been conducted, which uses a regression model to answer whether goodwill impairments are value relevant. The study presents a multivariate OLS regression to assess goodwill impairment losses effect on market value of a company. The study uses data from Finnish listed companies between 2012 and 2017.

The IAS 36 strives to deliver investors and other users of the financial statements transparent and reliable information of the underlying value of goodwill capitalized on the balance sheet. However, due to the elusive nature of IAS 36, and the lack of clear guidelines as to how a goodwill impairment test should be conducted, goodwill might be valued differently than other assets. IAS 36 leaves a considerable number of possibilities for management's own judgment and subjective perception on future economic development regarding goodwill impairments. Based on the previous research presented in this study, the discretion allowed by IAS 36 is primarily related the determination of cash flows generated by the cash-generating unit. Managers have the option to act opportunistically when analyzing future surplus, results, the discount rate, and the residual value calculation when conducting the impairment test regarding goodwill. Based on the objective analysis conducted in this study, it can be concluded that management's subjective view has a significant impact on goodwill accounting. Managers may also be prone to influence the interval of the recognized impairment loss.

Consequently, the goodwill impairment test presented by IAS 36 is often based on management's own expectations. The growing concern of managerial discretion

increases decision usefulness if private information regarding future cash flows and economic risks is provided to the users of the financial statements.

The key findings of the study are that goodwill impairment losses are considered value relevant to Finnish investors. The results of the regression model present that after a company reports a goodwill impairment loss, the firm's market value goes down. Consequently, there is a significant negative correlation between goodwill impairment and a company's stock price. The findings of this study are similar to previous studies conducted in the field concluding that goodwill impairments are value relevant on the Finnish market.

The results further indicate that management's subjective view has a significant impact on goodwill accounting, and therefore managers might be more prone in using their impairment discretion by hold back valuable information about the future economic performance of the company. Managers can therefore use goodwill impairment losses as a tool for market value manipulation of a specific company. Further, goodwill impairment losses timeliness has increased after the adoption of IFRS due to the fact that goodwill is reported at its fair value and investors get increasingly relevant information to base their economic evaluations on.

In addition, according to the financial statement analysis, the amount of goodwill did not increase substantially during the study period, and actually decreased drastically from 2012 to 2015. Which indicate that poor macroeconomic situations lead to increasing impairment losses. This supports IASB's intention that goodwill impairment testing should be carried out if market conditions change drastically and corporate environments weaken.

6.2 Contribution

This study contributes to the existing literature by providing new evidence about the value relevance of goodwill impairments on the Finnish market. This study is conducted using goodwill impairment data from companies during 2012 to 2017 when the IFRS 3 standard has been in use for several years. It can be interpreted that the management already has an understanding in how goodwill impairment testing is

performed, and how it possibly could be manipulated to increase personal or corporate benefits.

The results of this study might provide useful input to the international debate on the relevance and reliability of the accounting treatment of goodwill. The findings might be beneficial to both researchers and those involved with formulating IAS and IFRS standards in this particularly problematic area of goodwill accounting.

6.3 Limitations

This study has numerous limitations. Firstly, the sample consists of data only from Finland and therefore the findings may not be generalizable to firms in other countries. Secondly, the study focuses solely on goodwill impairment losses and does not examine how managers use their discretion over the allocation of goodwill to cash-generating units opportunistically. Thirdly, goodwill impairment losses do not necessarily reflect poor firm results hence it might be that a firm has a single cash-generating unit that is declining in value, and therefore needs to be impaired, even despite the fact that the firm performs well. This results in a goodwill impairment even if the overall performance of the company does not seem to indicate a need for a goodwill impairment loss. Finally, the multivariate OLS regression model used in this study is one of various models used to study value relevance of goodwill impairments, which indicates that there might be a more exact model for examining value relevance of goodwill impairments.

6.4 Future Research Suggestions

There are potential future research alternatives relating to the value relevance of goodwill impairments. As this research only studies goodwill impairment loss from a cross-sectional perspective, studies in the future could focus on conducting time series analysis to examine how current impairment losses affect future impairment losses and firm market value. Companies that have a high goodwill to asset ratio will presumably face increased pressure to record goodwill impairment losses in the future, while companies that have a low goodwill to assets ratio might not face this pressure. Moreover, future studies could consider using different variables in the regression model for interpreting the value relevance of goodwill impairments, than those

included in this study. It could also be of interest to further study managerial discretion between different companies. For instance, the level of debt, and management tenure could be possible variables in the regression model.

7 Summary in Swedish

7.1 Inledning

I januari 2005 pliktade International Accounting Standards Board (IASB) vartenda börsnoterade bolag i Europa att tillämpa International Financial Reporting Standards (IFRS) och International Accounting Standards (IAS) i sina finansiella rapporter. En av de mest anmärkningsvärda förändringarna i internationell redovisning efter tillämpningen av IFRS och IAS har varit att tillgångar rapporteras till deras verkliga värde istället för att rapportera tillgångar enligt anskaffningsutgiften. Som ett resultat till detta skapades IFRS 3 som behandlar företagsförvärv. IFRS 3 förbjuder avskrivningen av goodwill vilket ledde till nya krav för ledningen att utföra ett nedskrivningstest på goodwill årligen, eller oftare, om förändringar i omständigheterna tyder på att tillgångarna har försämrats. IAS 36 behandlar nedskrivning av tillgångar och standardens syfte är att säkerställa att ett företags tillgångar inte redovisas med ett högre värde än dess återvinningsvärde.

Förändringen från avskrivning av goodwill till det nuvarande nedskrivningsförfarandet återspeglar IASB:s avsikt att öka marknadseffektiviteten genom att förbättra öppenheten och jämförbarheten av bolagets redovisning för att öka användbarheten av redovisningsinformationen (Hitz, 2007). IAS 36 standarden anger regler för hur nedskrivningsförfarandet ska utföras, men företagen står inför flera problem vid genomförandet av nedskrivningsprövningen. Dessa problem hänför sig till värderingen av tillgångarna enligt deras bokförningsvärde (Catty, Vadron & Isom, 2015). Goodwill nedskrivningsprövningen enligt IAS 36 kräver att bolagets ledning skall årligen pröva värdet av goodwill. Efter det att nedskrivningsprövningen genomförts och det finns en indikation på att goodwill tillgångens bokförda värde överstiger återvinningsvärdet, måste goodwill nedskrivas.

Den aktiverade goodwillen i balansräkningen innebär överskott i framtida kassaflöden (Hamberg, Paananen & Novak, 2011). Detta medför att nedskrivningsprocessen har en teoretisk grund, eftersom värdet på goodwill endast minskar om det överskott i framtida kassaflöden minskar. Nedskrivningsprövningen kan därmed följaktligen ses som ett medel där företagsledningen gör privat information om företagets framtid

publikt för allmänheten. Värderrelevansen av goodwill nedskrivningar kan därför inte beaktas som direkt, utan snarare som indirekt bevis eftersom analytiker och investerare upprättar sina framtida beräkningar utifrån informationen från nedskrivningsprövningen (Li, Shroff, Venkataraman & Zhang, 2011).

Nedskrivningsprövningen av goodwill enligt IAS 36 är föremål för ledningens diskretion. Detta beror på det faktum att det finns flera antaganden som krävs för att kunna värdera återvinningsvärdet av den enhet som goodwill har allokerats till. Watts (2003) hävdar att dessa antaganden kan vara svåra att verifiera och därför kan uppskattningarna ge skadlig information om goodwillvärdet och hela bokslutet.

7.2 Avhandlingens Syfte

Syftet med denna avhandling är att undersöka värderrelevansen av goodwillnedskrivningar på den finska marknaden.

7.3 Forskningsfrågan

Utifrån avhandlingens syfte utvecklas följande forskningsfråga;

Beaktar investerare goodwillnedskrivningar som värderrelevanta?

7.4 Teori

7.4.1 Goodwill

Goodwill är en immateriell tillgång som uppstår från skillnaden mellan det köpta bolagets verkliga värde och det verkliga värdet av dess identifierbara nettotillgångar. Goodwill är en tillgång som utgör framtida ekonomiska fördelar och uppkommer från förvärvade tillgångar, vilka inte kan identifieras eller redovisas individuellt (IFRS 3). Redovisningen av goodwill splittrar åsikter mellan forskare och redovisare. Enligt Seetharaman, Balanchandran och Saravanan (2004) kan redovisningen av goodwill delas in i tre kategorier. I den första kategorin avskrivs goodwill mot kvarvarande vinster direkt efter förvärvet. Den andra kategorin representerar den tidigare använda redovisningspraxisen av goodwill i Finland, vilket kräver att goodwill avskrivs under

en rimlig tidsperiod. Den tredje kategorin handlar om att goodwill inte ska skrivas av, såvida inte nedskrivningsprövningen stöder nedskrivningsprocessen. Enligt denna teori ska goodwill inte nedskrivas ifall det inte finns en uppfattning om att värdet på goodwill har minskat. Denna kategori stöder IASB:s synpunkt och representerar den nuvarande politiken gällande goodwill nedskrivningar. (Seetharaman et al., 2004).

Blom (2009) har identifierat två olika typer av goodwill, internt genererad goodwill och förvärvad goodwill. Den förstnämnda bör inte beaktas i redovisningen eftersom det är omöjligt att göra det med de framstående riktlinjerna för dubbel bokföring och historiskt kostnadsbaserad redovisning. Enligt Bloom (2009) finns det inga svårigheter att ta hänsyn till det senare. Den nuvarande redovisningsstandarden för IFRS tillåter inte redovisning av internt genererad goodwill i balansräkningen. Enligt Stefanović, Petrović, Milojević och Stanić (2014) kan detta vilseleda användare av bokslutet om företagets värde och dess ekonomiska förhållande. IFRS vägrar att redovisa internt genererad goodwill som en tillgång eftersom det inte är en identifierbar resurs som kontrolleras av företaget och därför inte kan mätas på ett tillförlitligt sätt (IAS 36). Gore och Zimmerman (2010) argumenterar att en tillgång måste vara en identifierbar resurs som existerar oberoende av dess värdering och därför varken internt genererad eller förvärvad goodwill borde redovisas i balansräkningen.

Diskussionen ovan illustrerar den pågående tvisten mellan de olika synpunkterna angående goodwill. Det kan konstateras att goodwill är en immateriell tillgång, som inte kan upplösas från ett företag utan förvärv av hela företaget eller en betydande del av det. Goodwill består vanligtvis av immateriella tillgångar som rykte, konkurrenskraftiga anställda, gynnsamma affärslokaler, kundkontakter och andra önskvärda egenskaper för vilka ett annat företag är villigt att betala mervärde.

7.4.2 Värder relevans av Goodwill

Enligt Barth et al. (2000) anses ett bokförningsbelopp värder relevant ifall det har en betydande korrelation med dess säkerhets underliggande marknadsvärde. Värder relevansstudier använder flera värderingsmodeller för att strukturera relevanta kontroller och den vanligaste värderingsmodellen är användningen av marknadsvärde som ett referensvärde för att bedöma hur väl särskilda redovisningsbelopp speglar

information som används av investerare. Forskare som utför värder relevansstudier undersöker korrelationen mellan redovisningsbeloppen och aktiemarknadsvärden. Detta görs genom att pröva ifall bokförningsbeloppen förklarar tvärsnittsvariationen i aktiekursen.

Värderingsmodellerna som ligger till grund för prövningen i värderingslitteraturen är utvecklade med avseende på ett företags marknadsvärde (Ohlson, 1995; Barth et al. 2000). Ett alternativt tillvägagångssätt är att undersöka förändringar i aktiekurser eller avkastningar. Valet av ett givet tillvägagångssätt beror på forskningsfrågan och de ekonometriska målen. Den kritiska skillnaden mellan värder relevansstudier som studerar prisnivåer och de som studerar prisförändringar, eller avkastning, är att det förstnämnda undersöker vad som återspeglas i företagets marknadsvärde och det senare är intresserad av att granska vad som återspeglar värdeförändringar under en viss period.

7.5 Metodik, Data och Regressionsmodellen

Det är viktigt för en akademisk forskning att forskaren i ett tidigt skede löser de kritiska problem angående studien (Creswell, 2009, 113). I denna studie används kvantitativa metoder, eftersom denna studie använder siffror som data.

Denna studie använder sig av information om bolag noterade på Nasdaq OMX Helsingfors börsen under åren 2012 till 2017. Den 31 december 2017 fanns det 136 bolag noterade på Nasdaq Nordic OMX Helsingfors börsen.

Jag använder mig av följande OLS regressionsmodell för att bedöma värder relevansen av goodwillnedskrivningar:

$$MVE_i = \alpha + \beta_1 BVE_i + \beta_2 NPL_i + \beta_3 BVGW_i + \beta_4 GWIL_i + e_i$$

7.6 Resultat

Resultaten av OLS regressionen om värder relevansen av goodwillnedskrivningar tyder på att goodwillnedskrivningar är värder relevanta för investerare på den finska

aktiemarknaden. Det finns ett statistiskt signifikant negativt samband mellan goodwillnedskrivningar och ett företags marknadsvärde. Resultaten liknar tidigare studier om värder relevans av goodwillnedskrivningar vilka genomfördes på olika marknader runtom världen. Resultaten indikerar att goodwillnedskrivningar enligt investerare anses på ett tillförlitligt sätt mäta det underliggande värde av goodwill. De empiriska bevisen tyder på att de oförutsedda kunskaperna om goodwillnedskrivningar avslöjar ny information, och investerarna ändrar sina framtida ekonomiska förväntningar nedåt.

Det kan emellertid noteras att behovet att nedskriva goodwill ger ledningen chansen att utnyttja deras nedskrivningsdiskretion för att på ett tillförlitligt sätt leverera privat information om framtida kassaflöden till marknaden (t.ex. Li & Sloan, 2012; Hamberg & Beisland, 2014; Knauer & Wöhrmann, 2016). Resultaten av denna studie tyder på att ledningens diskretion används för att leverera privat information till investerare och därför har goodwillnedskrivningar och marknadsvärdet av ett företag ett signifikant negativt samband. Detta indikerar att ledningen kan använda goodwill nedskrivningar som ett verktyg för att manipulera företagets marknadsvärde.

Rapporteringen av goodwill till det verkliga värdet ökar tidsenligheten angående goodwillnedskrivningar, eftersom marknadsaktörerna erhåller aktuell information om värdet på goodwill. Detta stärker IASB:s syn och gör att balansvärden är mer relevanta och ökar investerarnas möjligheter att basera sina företagsbedömningar på verkliga värden.

7.7 Slutsatser

De viktigaste slutsatserna i denna studie är att goodwillnedskrivningar anses vara relevanta för finska investerare. Resultatet av regressionsmodellen visar att företagets marknadsvärde sjunker efter att ett företag redovisat en goodwillnedskrivning. Följaktligen finns det en väsentlig negativ korrelation mellan goodwillnedskrivningar och ett företags aktiekurs. Resultatet av denna studie är lik tidigare studier inom fältet (t.ex. AbuGhazaleh et al., 2012; Chen et al., 2004; Lapointe-Antunes et al., 2009) vilket tyder att goodwillnedskrivningar är värder relevanta på den finska marknaden.

Resultaten tyder även att ledningens subjektiva uppfattning har en betydande inverkan på goodwill redovisning, och därför är ledningen mer benägen att använda sin diskretion att förmedla information om företagets framtida ekonomiska utveckling. Ledningen kan därför använda goodwillnedskrivningar som verktyg för att manipulera företagets marknadsvärde. Vidare kan man konstatera att goodwillnedskrivningarnas tidsenlighet har ökat efter att IFRS tagits i bruk på grund av att goodwill redovisas till verkligt värde och investerare får relevant information för att basera sina ekonomiska utvärderingar på.

Resultaten från bokslutsanalysen tyder på att värdet på goodwill inte har ökat väsentligt under åren 2012 till 2017 och att värdet minskade drastiskt från 2012 till 2015. Detta indikerar att dåliga makroekonomiska förhållanden leder till ökade nedskrivningar. Detta stöder IASB:s avsikt att nedskrivningsprövningen av goodwill ska genomföras om marknadsförhållandena förändras drastiskt.

References

- AbuGhazaleh, N. M., Al-Hares, O. M. Roberts, C. (2011). *Accounting Discretion in Goodwill Impairments: UK Evidence*. Journal of International Financial Managements & Accounting 22 (3), pp. 165–204.
- AbuGhazaleh, N. M., Al-Hares, O. M. & Haddad, A. E. (2012). *The Value Relevance of Goodwill impairments: UK Evidence*. International Journal of Economics and Finance Vol. 4 No. 4; April 2012 pp. 206-216
- Alciatore, M., Dee, C.C., Easton, P., & Spear, N. (1998). *Asset Write-Downs: A Decade of Research*. Journal of Accounting Literature. Vol 17. pp. 1-39.
- Barth, M., Beaver, W. & Landsman W. (2000). *The relevance of value relevance research*. Journal of Accounting & Economics conference 2000.
- Bartov, E. Lindahl, F & Ricks, W. (1998). *Stock price behaviors around announcements of write-offs*. Review of Accounting Studies, 3 pp. 327-346.
- Beatty, A. & Weber, J. (2006). *Accounting Discretion in Fair Value Estimates: An Examination of SFAS 142 Goodwill Impairments*. Journal of Accounting Research 44(2), pp. 257–288.
- Beisland, L.A. & Kjell H.K. (2015). *Have IFRS Changed How Stock Prices Are Associated with Earnings and Book Values?* Review of Accounting and Finance. Vol 14. Issue 1. pp 41-63.
- Bens, D. Heltzer, W. Segal, B. (2011). *The information content of goodwill impairments and SFAS 142*. Journal of Accounting, Auditing and Finance, 26. pp. 526-555
- Bloom, M. (2009). *Accounting For Goodwill*. Abacus 45 (3), pp. 379-389.
- Bryman, A. & Bell, E. (2011). *Business Research Methods*. Oxford University. Press Inc. 3rd edition.
- Bugeja, M. & Gallery, N. (2006). *Is older goodwill value relevant?* Accounting and Finance 46, pp. 519-535.
- Catty, J.P., Vadron, D. & Isom, A.R. (2015) *Wiley Guide to Fair Value Under IFRS: International Financial Reporting Standards*. John Wiley & Sons, Inc.
- Chen, C., Kohlbeck, M. & Warfield, T. (2004). *Goodwill valuation effects of the initial adoption of SFAS 142*. Working Paper: University of Wisconsin Madison.
- Choi, W., Kwon, S. & Lobo, G. (2000). *Market Valuation of Intangible Assets*. Journal of Business Research. Vol. 49. pp. 35-45.

- Comiskey, E. E., Clarke, J. E. & Mulford, C. W. (2010). *Is Negative Goodwill Valued by Investors?* Accounting Horizons 24(3), pp. 333–353.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications Ltd. Third Edition
- Crowther, D. & Lancaster, G. (2008). *Research Methods: A Concise Introduction to Research in Management and Business Consultancy*. Butterworth-Heinemann
- Elliott, J. & Shaw, W. (1988). *Write-offs as accounting procedures to manage perceptions*. Journal of Accounting Research, 26, pp. 91-119.
- Ernst & Young. (2004). *Guide to IFRS 3 Acquisition of Companies*.
- Francis, J., Hanna, J. D. & Vincent, L. (1996). *Causes and effects of discretionary asset write offs*. Journal of Accounting Research, 34, pp. 117-134.
- Gore, R. & Zimmerman. D. (2010). *Is Goodwill an Asset?* CPA Journal 80 (6), pp. 46-48.
- Giuliani, M. & Brännström, D. (2011). *Defining goodwill: a practice perspective*. Journal of Financial Reporting and Accounting, Vol. 9 Issue: 2, pp.161-175.
- Hamberg, M. & Beisland, L-A. (2014). *Changes in the value relevance of goodwill accounting following the adoption of IFRS 3*. Journal of International Accounting, Auditing and Taxation, Volume 23, Issue 2, pp. 59-73.
- Hamberg, M., Paananen, M & Novak, J. (2011). *The adoption of IFRS 3. The effects of managerial discretion and stock market reactions*. European Accounting Review, Vol 20. No. 2 (2011), pp. 263-28.
- Hayn, C. & Hughes, P.J. (2006). *Leading indicators of goodwill impairment*. Journal of Accounting, Auditing and Finance, 21. pp 223-265.
- Henning, S. Lewis, B. & Shaw, W. (2000). *Valuation of the components of purchased goodwill*. Journal of Accounting Research 38 (2), pp. 375–386.
- Hirschey, M. & Richardson, V. (2002). *Information content of accounting goodwill numbers*. Journal of Accounting and Public Policy 21, pp. 173–191.
- Hitz, J. M. (2007). *The decision usefulness of fair value accounting – A theoretical perspective*. European Accounting Review, 16, pp. 323 362.
- International Accounting Standards Board. (2004). *International Financial Reporting Standards*. London, edition of 2015.
- Jennings, R., LeClere, M. & Thompson, R. B. (2001). *Goodwill amortization and the usefulness of earnings*. Financial Analysts Journal, 57, pp. 20-28.

- Jennings, R., Robinson, J., Thompson, R. & Duvall, L. (1996). *The relation between accounting goodwill numbers and equity values*. Journal of Business Finance and Accounting 23, pp. 513–533.
- Jerman, M. & Manzin, M. (2008). *Accounting Treatment of Goodwill in IFRS and US GAAP*
- Johnson, T. & Petrone, K. (1998). *Is goodwill an asset?* Accounting Horizons 12 (3), pp. 293-303.
- Kargin, S. (2013). *The Impact of IFRS on the Value Relevance of Accounting Information: Evidence from Turkish Firms*. International Journal of Economics and Finance; Vol. 5, No. 4
- Knauer, T. & Wöhrmann, A. (2016) *Market Reaction to Goodwill Impairments*. European Accounting Review, 2016. Vol. 25, No. 3. pp, 421-449.
- KPMG. (2014). *Who cares about goodwill impairment?: A collection of stakeholder views*. KPMG International Standards Group
- LaFond, R. & Watts, R. L. (2008). *The information role of conservatism*. The Accounting Review, 83, pp. 447-478.
- Lantto, A-M & Sahlström, P. (2009). *Impact of International Financial Reporting Standard adoption on key financial ratios*. Accounting and Finance. Vol 49. pp. 341-361.
- Lapointe-Antunes., P., Cormier, D, & Magnan, M. (2009). *Value Relevance and Timeliness of Transitional Goodwill-Impairment Losses: Evidence from Canada*. International Journal of Accounting.44 (1). pp. 56-78.
- Leuz, C., Nanda, D. & Wysocki, P. (2003). *Earnings Management and Investor Protection: An International Comparison*, Journal of Financial Economics, 69, pp. 505–527.
- Li, K., & Sloan, K. (2012). *Has Goodwill Accounting Gone Bad?* Working paper University of California, Berkeley
- Li, Z., Shroff, P., Venkataraman, R & Zhang, I. X. (2011). *Causes and consequences of goodwill impairment losses*. Review of Accounting Studies. 16 (4), pp. 745-778.
- Lock, I., Seele, P. (2015) *Quantitative content analysis as a method for business ethics research*. Business Ethics: A European Review Volume 24. Number S1. July 2015. pp. 24-40.
- Moehrle, S. R., & Reynolds-Moehrle, J. A. (2001). Say goodbye to pooling and goodwill amortization. *Journal of Accountancy*, 192 (3), pp. 31-38
- Ohlson, J. (1995). *Earnings, Book Values and Dividends in Equity Valuations*. Contemporary Accounting Research 11 (2), pp. 661-687.

- Ojala, H. (2007). *Does the reporting of goodwill impairment lag behind the economic impairment of goodwill under the impairment-only approach? Essays on the value relevance of goodwill accounting*. Helsinki: Helsinki School of Economics.
- Oliveira, L., Rodrigues, L.L & Craig, R. (2010). *Intangible Assets and Value Relevance: Evidence from the Portuguese Stock Exchange*. The British Accounting Review. Vol. 42. pp. 241-252.
- Pajunen, K. & Saastamoinen, J. (2013). *Do auditors perceive that there exists earnings management in goodwill accounting under IFRS?* Managerial Accounting Journal 28(3), pp. 245–260.
- Petrović, Z., Stefanović, D., Milojević, M. & Stanić, M. (2014). *Internally generated Goodwill Assessment: contemporary Times Requirement or Not?* Faculty of Business in Belgrade, Singidunum University
- Qureshi, M. & Ashraf, D. (2013). *Is goodwill capitalisation value relevant? Some UK evidence*. Accounting, Accountability & Performance 18 (1), pp. 19-34.
- Saastamoinen, J. & Pajunen, K. (2012). *Goodwill Impairment Losses as Managerial Choices*. Working Paper
- Sahut, J-M., Boulerne, S. & Teulon, F. (2011). *Do IFRS provide better information about intangibles in Europe?* Review of Accounting and Finance 10 (3), pp. 267-290.
- Seetharaman, A., Balanchandran, M. & Saravanan, A. (2004). *Accounting Treatment of Goodwill: Yesterday, Today and Tomorrow. Problems and Prospects in the International Perspective*. Journal of Intellectual Capital 5 (1), pp. 131-152.
- Seetharaman, A., Sreenivasan, J., Sudha, R. & Ya Yee, T. (2006). *Managing impairment of goodwill*. Journal of Intellectual Capital 7 (3), pp.338-353.
- Shoaf, V. & Zaldivar, I.P. (2005). *Goodwill impairment: Convergence not yet achieved*. Review of Business, 26, pp. 31-35.
- Sun, L. (2016). *Managerial ability and goodwill impairment*. Advances in Accounting. Vol 32, March 2016. pp. 42-51.
- Uzma, S., Singh, J.P. & Kumar, N. (2010). *Discounted Cash Flow and Its Implication on Intangible Valuation*. Global Business Review 11 (3) pp. 365-377.
- Vance, D. (2010). *Return on Goodwill*. The Journal of Applied Business Research 26 (2), pp. 93-103.
- Vogt, M., Pletsch, C., Morás, V. & Klann, R. (2015). *Determinants of Goodwill Impairment Loss Recognition*.
- Watts, R. L. (2003). *Conservatism in Accounting – Part I: Explanations and Implications*. Accounting Horizons 17 (3), pp. 207–221.

Zang, Y. (2008). *Discretionary behavior with respect to the adoption of SFAS 142 and the behavior of security prices*. Review of accounting and Finance. 7 (1), pp. 38-68.